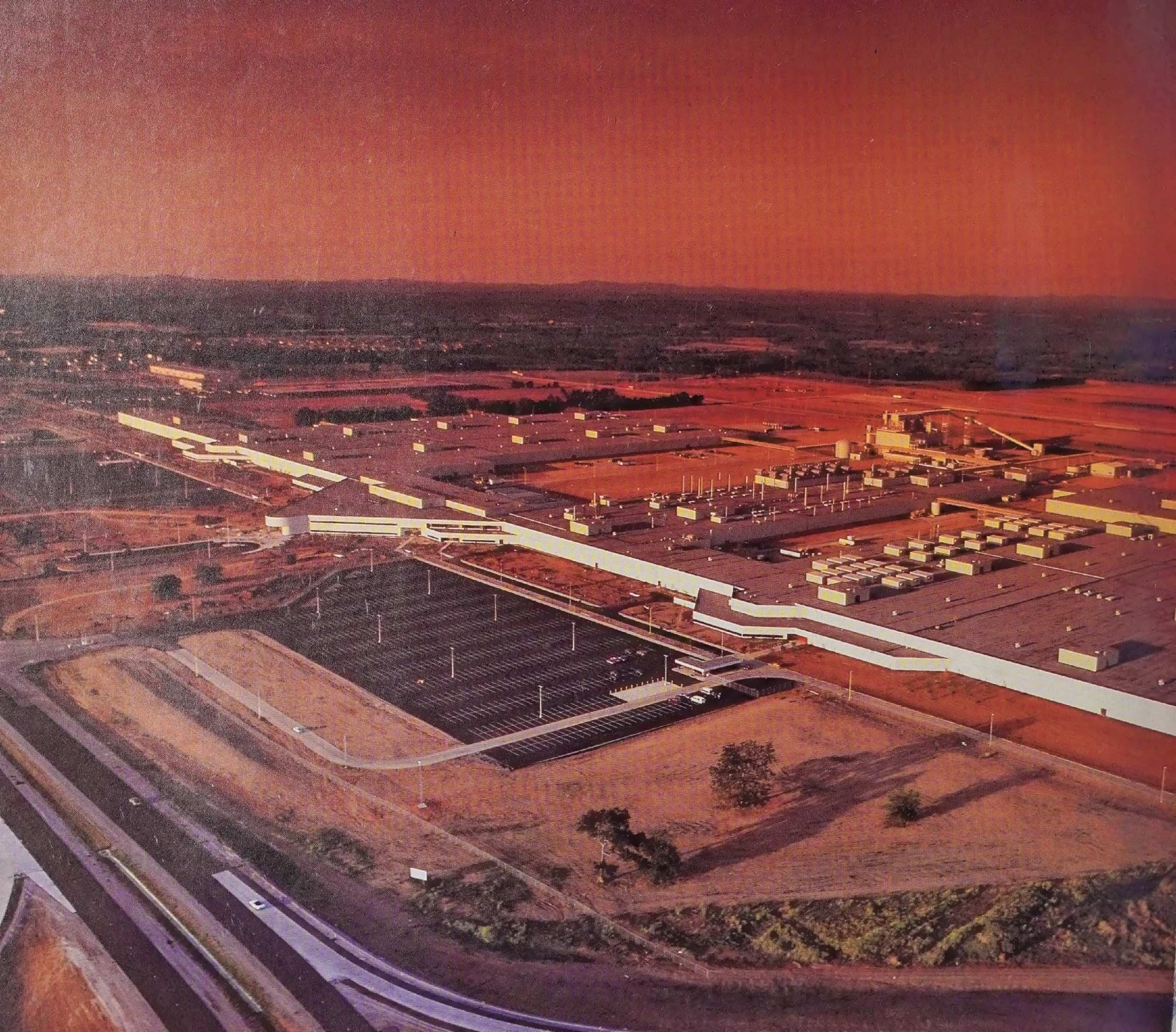
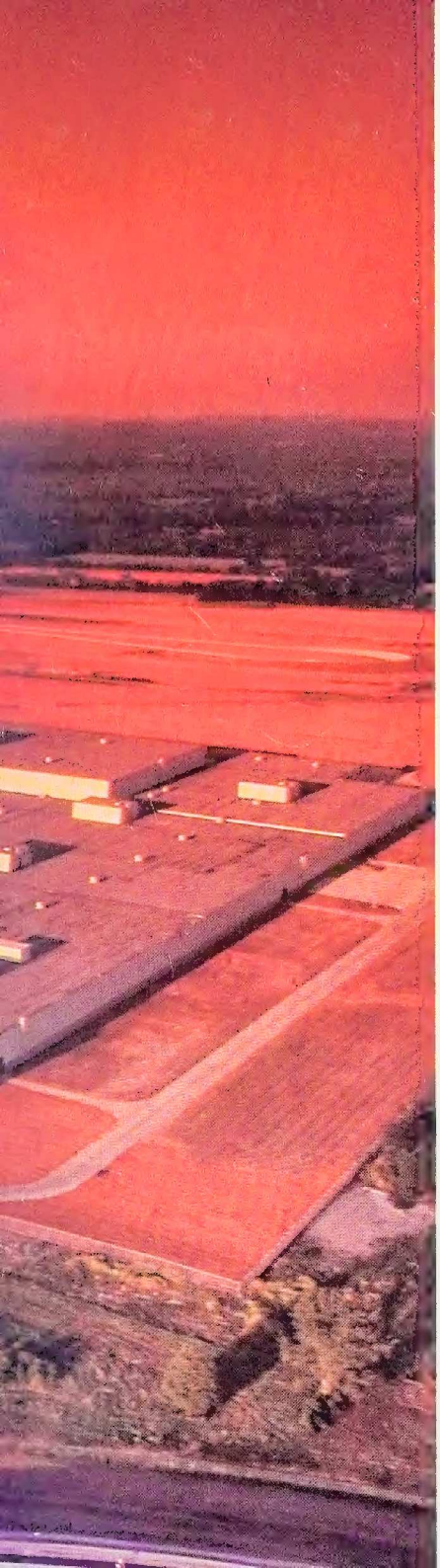
NISSAN IN TENNESSEE

This book was produced by
NISSAN MOTOR MANUFACTURING CORPORATION U.S.A.
and presented to employees and friends of the company
on the occasion of the formal dedication
of its new facility at Smyrna, Tennessee
October 21, 1983

NISSAN IN TENNESSEE





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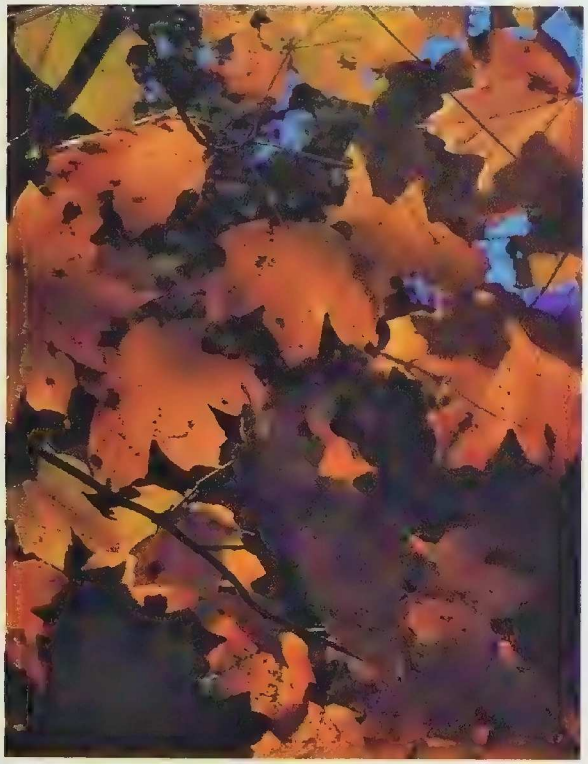
The picture which appears on the slipcase of this book was produced from a photograph taken on June 16, 1983, of all NMMC employees and their Job 1 truck. The full photograph is printed on page 127 of the book.

Opposite page:

Driver Mike Smith and passenger Linda Vaughn, both NMMC employees, with Nissan pickup and Tennessee state flag


NISSAN

McClary's farm, October 30, 1980



In the October light, the land was splashed with a rainbow of autumn colors—crimson, rust, amber, earth brown, pumpkin orange. Here and there, patches of silver frost glistened in the slanting rays of morning sunshine. Beef and dairy cattle roamed the flat expanse of pastures or herded together around the barns and feedlots.

The land had always been rural, agricultural, pastoral. A sprawling cotton plantation had flourished here long before the Civil War. For almost two centuries, succeeding generations of Tennesseans had farmed this fertile soil in the traditional manner they had learned from their forebears.

Now, it seemed, the land was about to be turned to a new purpose. More than 800 acres of it had been tentatively combined into a single tract that took in two work-

ing farms, a church, a campground, a motel, a stock-car racetrack. Its principal point of access was at the intersection of U. S. Highway 41-70 and J. S. Young Road, two miles from the Rutherford County town of Smyrna and twenty-two miles southeast of the center of Nashville. To this country landscape in the heart of Middle Tennessee had come an increasing number of strangers. They had flown over the land, driven around it, walked on it; they had taken photographs and soil samples and test borings. And soon the word got around: An international industrial corporation was considering this site for the construction of the most modern and technologically advanced motor vehicle manufacturing and assembly plant in the world.

The pending decision to convert the land's function from agriculture to industry had evolved from a slow and deliberate process. For six years, Nissan Motor Company, Ltd., of Japan, the world's fourth largest producer of motor vehicles, had been exploring the prospect of making some of its products in the United States. For three years, Tennessee had been among more than twenty-five states under active study as potential locations for a major manufacturing facility. For nine months, the Smyrna site had stood out in the minds of both Nissan and Tennessee officials as the best possible location in the state. And for six weeks, every person involved in or even remotely interested in the selection process had waited anxiously for Nissan's leaders to make their final choice between Smyrna and two other sites in the Georgia suburbs of Atlanta.

Finally, the decision was reached and the time to announce it was at hand. In Smyrna and Nashville and Murfreesboro, the people who had worked to attract Nissan to Tennessee waited with high hopes and great expectations. "We couldn't be absolutely certain we had won," recalled Smyrna Mayor Sam Ridley later, "but we came to that day with a strong feeling of confidence."

THE WALL STREET JOURNAL.

Thursday, October 30, 1980

Small Tennessee Town Waits Restlessly For Word on Site of Datsun Truck Plant

BY AMANDA BENNETT

Staff Reporter of THE WALL STREET JOURNAL

SMYRNA, Tenn.—Today is going to be the biggest day ever in Smyrna, Tenn.

Then again, it may be a bummer.

By 12:30 p.m., Nissan Motor Co., Japan's No. 2 auto maker, will announce where it will build its first U.S. automotive assembly plant, a plant that will cost at least $300 million, turn out 10,000 small pickup trucks a month, and employ 2,200 workers at perhaps twice the average of some $11,000 a year that Smyrna residents now earn.

Rumors in the U.S. and Japan give Smyrna the inside track for the Datsun plant, although two communities near Atlanta, McDonough and Cartersville, Ga., also are candidates. Nissan says the final decision will be made only "minutes" before it announces it choice.

"I'm anxious, to say the least," says Smyrna mayor Sam Ridley. Laurene Zimmer, an owner of the Castle and Dungeon, a fast-food restaurant on the main drag, says nearly all her customers have been talking about the plant. In Nashville, only 15 miles away, Tennessee Gov. Lamar Alexander says the plant is the "single most important" project he has ever worked on. . . .

The plant "would be great for us," says Billy Joe Montgomery, a trucker, who says that his firm is getting two, three and four job applicants a day. It "would be a lot of help to a lot of people," says Rev. James Bozarth, pastor of Grace Tabernacle Church. Auto workers typically earn between $18,000 and $25,000 a year.

Besides jobs at the plant, others would be created by business serving the plant and the town's increased payroll.

Joseph Calandriello, who is opening Poppa Joe's Restaurant here, thinks the new plant would be good for "50 cups of coffee a day" at his place. . . .

Takashi Ishihara

Marvin T. Runyon

THURSDAY, OCTOBER 30, 1980: At twenty minutes past noon, a Lincoln limousine pulled up to the entrance of the Fairlane Club in Dearborn, Michigan. Lincoln and Fairlane and Dearborn itself are names commonly associated with the Ford Motor Company, but the limousine passengers were not Ford executives. One of them was Takashi Ishihara, the president of Nissan Motor Company, Ltd. He had made the 7,500-mile air journey from Tokyo to Detroit the day before. Another was Marvin T. Runyon, president of the company's new American subsidiary, Nissan Motor Manufacturing Corporation U. S. A., which had its temporary headquarters in nearby Southfield. A native Texan, Runyon had spent thirty-seven years in the Ford organization; at the time of his retirement the previous June, he had been the company's vice president in charge of body and assembly operations.

With them were Bob Thomas, a public relations consultant to Nissan's U. S. distributing company in California, and Masahiko Zaitsu, a director in the Tokyo headquarters organization and general manager of the team of specialists whose preliminary planning had set the stage for a production facility in the United States. It was Zaitsu, as the leader of this so-called C-30 task force, who had made the principal recommendations upon which the new American enterprise was established.

The Nissan executives had invited representatives of the automotive press to the Fairlane Club to tell them the details of the company's U. S. construction plans. Much of the information had already been reported: a capital investment in excess of $300 million, jobs for about 2,000 people, production of over 100,000 Datsun light pickup trucks a year beginning in August 1983. What remained to be made official was the location of the plant.

On the way to their meeting with the press, the Nissan officials stopped at an office in the Fairlane Club, and there Marvin Runyon made three quick telephone calls. One was to Atlanta, where Georgia Governor George Busbee was waiting; another was to Tennesee Governor Lamar Alexander in Nashville; and the third was to the office of Rutherford County Attorney William T. Sellers in Murfreesboro, where Smyrna's Mayor Ridley was standing by with most of the local officials who had taken part in the site negotiations.

Two officials of the Tennessee Department of Economic and Community Development, Commissioner James C. Cotham III and Joseph W. Davis Jr., director of international marketing, were in Governor Alexander's office when the call came. "The time had been arranged in advance," Davis later remembered. "It was about eleven-thirty, Nashville time. Runyon and Alexander exchanged greetings, and then Runyon got right to the point. 'Well, it looks like we're coming your way,' he said. The governor said, 'That's great!' and gave us the thumbs-up sign, and I jumped straight up out of my chair. We had worked very hard for that decision, and it was a thrill to know we had succeeded."

The reaction was similar in Murfreesboro, where about three dozen people listened in on Runyon's conversation with Ridley. "We let out a big cheer at the news," said Bill Sellers. There were no cheers in Georgia, but Governor Busbee responded gracefully to the decision, and Runyon told him, "The choice was so close that I've wished at times we could build two plants."

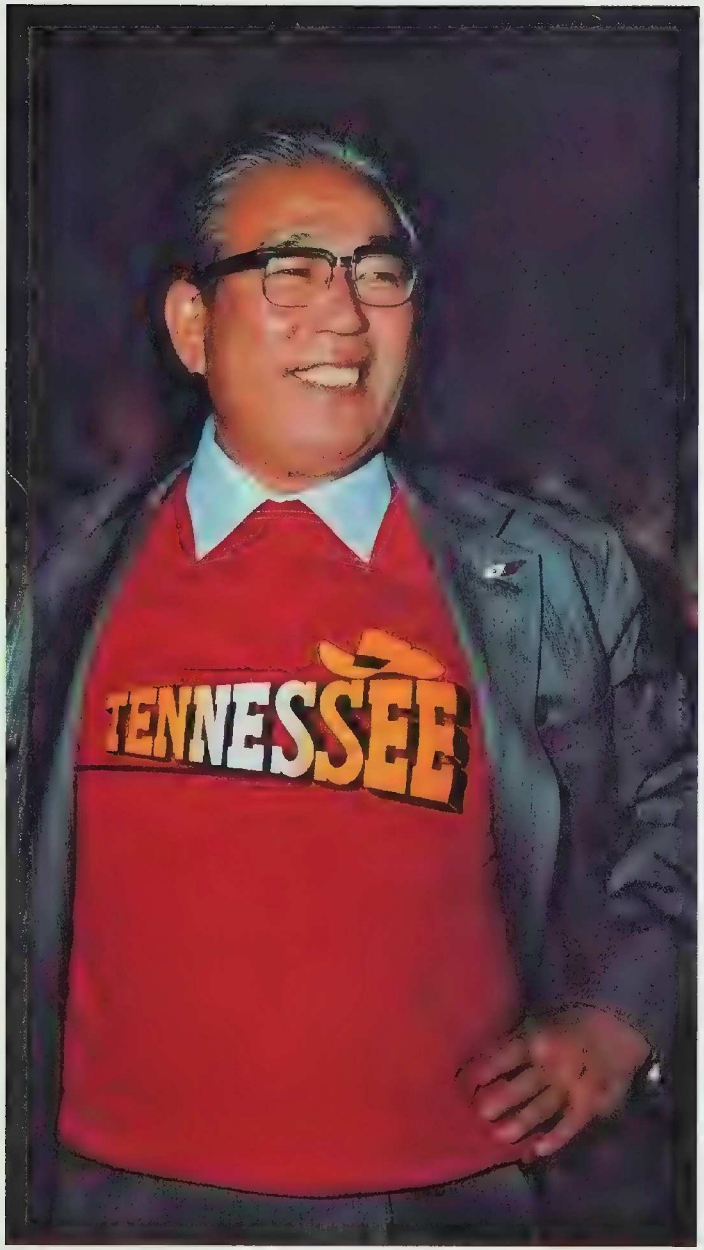
After the Dearborn press conference, the party of Nissan officials and some members of the press corps flew in two private jets to Nashville for a late-afternoon formal announcement and reception.

When the planes had taxied to a stop at the state hangar, where Governor Alexander and others waited to greet them, Masahiko Zaitsu emerged, smiling broadly, and threw open his suit coat to reveal a brightly colored T-shirt with the word TENNESSEE emblazoned across the chest.

Their decision finally made, Takashi Ishihara (center) and Marvin Runyon (right), with Mrs. Ishihara and Mrs. Runyon, arrived at the Nashville airport to be greeted by Governor Lamar Alexander (left).

We were expecting the call to come at about noon that day, October 30, and we were as close as you can get to certain that we had won. Still, you just never know for sure, so there was some anxiety mixed in with the anticipation and excitement while we waited. Just about all the Rutherford County people who had taken part in the negotiations with Nissan were there together, waiting in the offices of County Attorney Bill Sellers. The press knew about it too, and there were several reporters and photographers present. There must have been thirty or forty of us. Bob Batey and Bob Ealy of the Economic Development Committee, Tommy Smith of the Industrial Bond Board, Matt Murfree of the County Board of Commissioners, Senator John Rucker, Representative John Bragg, County Executive Ben Hall McFarlin, the members of the Smyrna City Commission—I couldn't name everybody who was there, but it was a big crowd. Finally, Marvin Runyon called and asked for me, and the others all listened to our conversation on the loud speaker, and they let out a big cheer when Marvin told me Nissan was coming to Smyrna.

Sam Ridley
Mayor of Smyrna



TENNESSEE was the magic word when Nissan officials arrived in Nashville, and Masahiko Zaitsu sported a special T-shirt for the occasion.

In preparation for the October 30 announcement, I made arrangements at hotels in both Nashville and Atlanta, not knowing which site would be chosen. On a trip to Nashville during that time, I stopped at a gift shop in the airport and happened to see this bright red and yellow T-shirt that had TENNESSEE printed on it in big block letters. On impulse, I bought the shirt and stuck it in my briefcase, thinking that I might ask Mr. Ishihara to wear it if the Smyrna site was chosen. Later, when the choice had been announced and we were flying from Detroit to Nashville, I pulled out the T-shirt and said, "Would anybody like to wear this?" Everybody got a big charge out of it, and Mr. Zaitsu, who is a very outgoing person, volunteered to put it on over his dress shirt. Then when we got to the Nashville hangar where Governor Alexander was waiting, Zaitsu got off the plane and "flashed" for the governor—held his coat open and showed off his TENNESSEE shirt—and we all shared in the humor and the pleasure of it.

Bob Thomas
public relations consultant
for Nissan's U. S. distributor

Then, at the Radisson Hotel in downtown Nashville, Takashi Ishihara and Marvin Runyon and the rest of the Nissan entourage exchanged greetings and congratulations and toasts with their new neighbors, the Tennesseans. It was a remarkably diverse gathering, a joining of Japan and America, Detroit and Nashville, Murfreesboro and Smyrna, agriculture and industry, corporate executives and public officials and private landowners. In large and small ways, they were all partners in a major international project—"TenNissan," someone dubbed it—and they had come together to launch the enterprise and to salute one another's participation in it.

"A journey of a thousand miles must begin with a single step," observed the Chinese philosopher Lao-tzu twenty-five centuries ago. On an autumn evening in 1980, a small group of Americans and Japanese took such a symbolic first step together on the ambitious new journey of Nissan in Tennessee.

The New York Times

FRIDAY, OCTOBER 31, 1980

Nissan Plant Set for Tennessee

Special to The New York Times

NASHVILLE, Oct. 30,—Nissan Motor Company Ltd., the maker of Datsun vehicles, today announced that it would build a $300-million truck assembly plant at Smyrna, Tenn. It chose the site, which is about 20 miles southeast of Nashville, over a competing location near Atlanta.

The announcement, made by Nissan officials in Dearborn, Mich., was greeted with enthusiasm by state and local officials, but some local residents voiced misgivings.

The Tokyo-based company said that it would begin work at the 850-acre site by early next year. Nissan said it hopes that by 1983 the Smyrna facility will be producing 10,000 trucks a month. The plant is expected to employ 2,200 workers and have an annual pavroll of $44 million.

The Nissan plant will be the fourth assembly facility established in the United States by a foreign producer. Volkswagen operates a plant at New Stanton, Pa., and is establishing another at Sterling Heights, Mich. Honda Motor Company has said it will assemble cars adjacent to its motorcycle facility in Marysville, Ohio.

According to Nissan officials, the majority of the components going into the three models of truck to be produced at the plant will be imported. They said that Smyrna was chosen because of the availability of transportation. Approximately 35 percent of the components of each vehicle will be of local origin. . . .

Nashville Banner

October 30, 1980

State Gets Nissan Plant

By PETE BYRD
Banner Business Editor

Dearborn, Mich.—It's official. Nissan Motor Co. is coming to Tennessee.

The Japanese automaker announced today it would build the highly coveted $450 million Datsun truck assembly plant near Smyrna.

Takashi Ishihara, president of Nissan, in announcing the decision, said there were "no substantial differences" between the deals offered them by Tennessee and Georgia.

"Consequently, we have had to make a decision on the basis of the actual conditions of the sites," Ishihara said. Ishihara added that a comprehensive study showed the Smyrna site to be excellent in terms of location, physical features, zoning, highway access and distribution location.

The 3 million square foot plant will serve as corporate headquarters for Nissan's U.S. subsidiary and will be its first major facility in the United States.

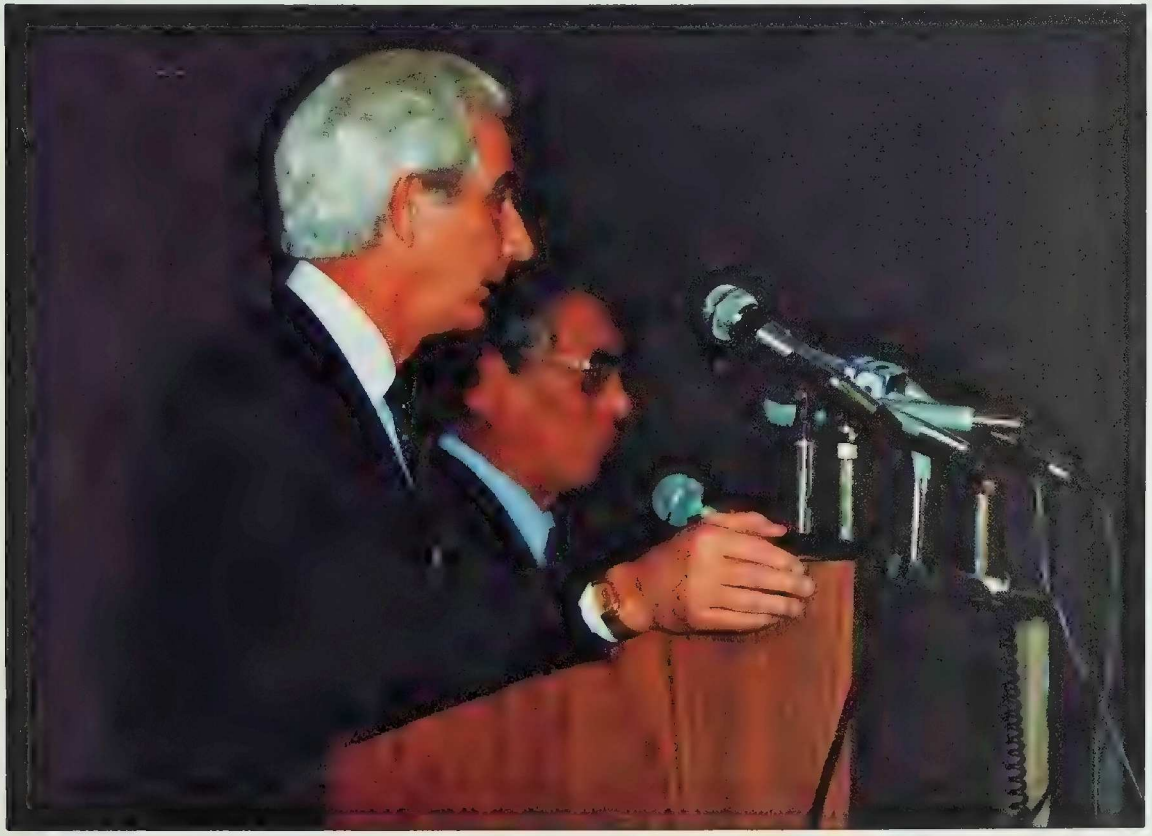
Nissan officials gave no precise date for when they would start construction on the plant, which will produce 10,000 trucks a month and employ 2,200 workers.

"We intend to sign a contract for purchase of the land at the earliest possible date, work out details of the plant construction program, and proceed with formalities in cooperation with the Tennessee State government so that we can start construction in January 1981 and thus commence production in the fall of 1983," Ishihara said.

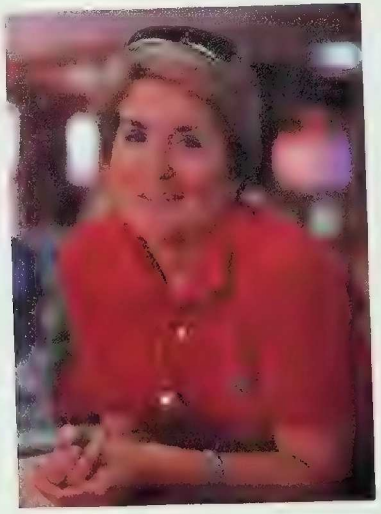
A press conference was scheduled for 5:30 p.m. today at Nashville's Radisson Plaza Hotel by Marvin Runyon, president of Nissan Motor Manufacturing Corp. U.S.A., and top Japanese officials of Nissan.

Runyon said the plant would be of "major importance to the economy of the United States." Runyon said the decision was made after several years of searching, thousands of man hours, and miles of travel. "The choice was so close I wished at times we could have built two plants."

The decision caps months of intensive negotiations and jockeying for position in a competition that involved nearly ever state east of the Mississippi River. . . .



At a downtown Nashville hotel, Runyon, Ishihara, and Alexander answered questions from the press prior to a reception and party for Nissan and their new Tennessee neighbors.

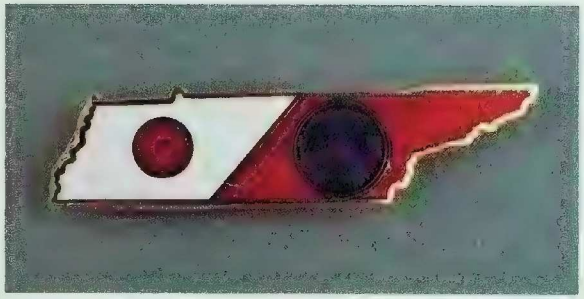


When the word first got around that Nissan was coming, I heard a few people complain that we were going to be taken over by a nation we had fought a war with—or worse, that Smyrna was going to become another Detroit. People feared big changes. But I never felt that way. I was born and raised here, and I remember what a small place it was and how little we had to do when I was a teenager. We *needed* change.

Now that Nissan is here, I see a lot of change, and most of it for the better. At the building supply store where I work, business has really improved a lot. Property values have gone up, and housing opportunities are increasing, and we're getting a new hospital, better restaurants, more stores. The Nissan people who have come, Americans and Japanese both, have added a lot to this community, and that's been good for us. The new jobs will help, too. Maybe they'll give some young people a chance to stay here and work instead of going off to places like Detroit.

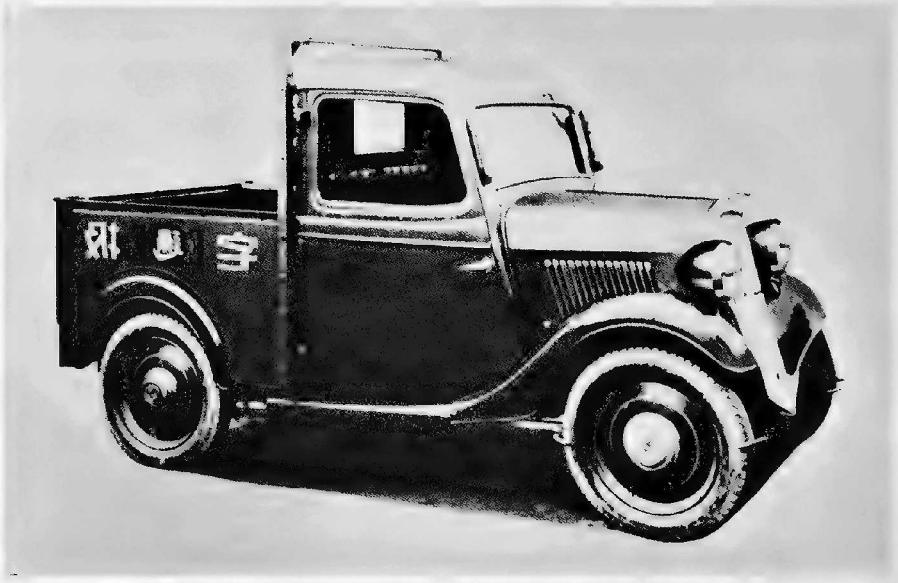
There's more traffic congestion, and that makes me hope Smyrna doesn't lose its small town flavor—but that was already fading before Nissan came. All in all, I'm convinced that this is a great thing for Smyrna, and I think most of the people around here feel the same way.

Jean Hoover Ross
Smyrna resident, 1983



Wearing his Tennessee-shaped lapel pin symbolizing the state's growing economic partnership with Japan (above), Governor Alexander was elated when Marvin Runyon called from Michigan to say Nissan was coming to Smyrna.

Soon after Nissan Motor Company, Ltd., began producing Datsun vehicles in 1934, this pickup truck —the "ancestor" of trucks from the new plant in Smyrna—rolled off the assembly line. Datsun cars such as this stylish coupe convertible manufactured in the mid-1930s (right) have steadily gained worldwide popularity.



The rise of Nissan in the world automotive market since World War II has been nothing short of spectacular, but the history of the company and its predecessors in Tokyo goes back almost as far as Henry Ford's in Detroit.

In 1914, a forerunner of Nissan built a ten-horsepower passenger car and named it DAT ("fast rabbit" in Japanese, and also the surname initials of three backers of the manufacturing venture). Twenty years later, a new model DAT was called DATSON ("son of DAT"), but since the S-O-N sound in Japanese means "loss," the name was soon changed to DATSUN to escape the unfavorable connotation.

By 1934, the maker of Datsuns had become part of a large industrial holding company called Nihon Sangyo (in English, "Japan Industry"), and the first syllables of those two words—Ni-San—were the source of the auto maker's new name. Nissan Motor Company, Ltd., was officially named in May 1934, but the company counts its birthdays from December 1933, when it was taken over by Nihon Sangyo.

Nissan produced 880 Datsun cars and 290 trucks in 1934, and it was still making fewer than 10,000 vehicles a year when World War II began several years later. Postwar production was resumed under U. S. occupation authorities in 1946, and within ten years the company was turning out more than 100,000 cars and trucks annually. Diversified excellence—in design, engineering, quality control, applied technology, styling—made Datsun a strong competitor with Toyota at home and a winner of prizes and attention at auto shows abroad. Looking to the export market, Nissan began distribution and sales in the United States in 1958 and built assembly plants in Mexico and Peru in the 1960s.

From sales of a few hundred vehicles in 1959, Nissan Motor Corporation in U. S. A., the company's California-

based distributor, grew rapidly under the leadership of Takashi Ishihara, later to become president of the parent company. (Masahiko Zaitsu was also a charter staff member and a director of the subsidiary.) By 1970, there were close to 900 Datsun dealers in the U. S., and annual sales exceeded 150,000 units. The company sold its one-millionth vehicle in the United States in 1973—and its two-millionth just three years later. In 1980, Nissan marketed more than 600,000 cars and trucks in this country. Among imports, it ran neck-and-neck with Toyota for first place, thus leading the way as combined sales of all imports climbed to a record one-fourth of total U. S. auto sales.

Nissan was by then one of the three dozen largest corporations in the world, with 57,000 employees, annual sales of over $12 billion, and production of more than 2.8 million vehicles a year. It had a dozen manufacturing plants in Japan and others in Mexico, Peru, Australia, Italy, Spain, and New Zealand. Its operations in the continental United States included the California distributor, an automobile design institute, a finance corporation, a trading company, a test laboratory, an engineering office, a distributor of industrial equipment, and a distributor of textile machinery. (The industrial distributor, headquartered in Memphis since 1976, supplies Datsun forklift trucks throughout North America.)

Datsun's soaring sales and the growth of imports in general, combined with the manifold problems of the domestic auto makers, gave rise in the late 1970s to demands for import quotas and for the development of foreign-car production facilities in this country. In anticipation of these trends, Nissan had started several years earlier to explore the prospect of building a U. S. assembly plant.

Without knowing which of its vehicles it might decide to produce here, the company dispatched the first of several survey teams on a fact-finding mission in 1974. Other missions followed, each one headed by a high-ranking Nissan officer and each one building upon the work of the team before it. In the fall of 1977, Tennessee Governor Ray Blanton and others in his administration visited the company's headquarters in Tokyo to talk about the new Nissan industrial equipment distribution center in Memphis. On that occasion, the Japanese indicated their interest in finding a satisfactory plant site, and the Tennesseans expressed a desire to make such a site available.

Nashville Banner May 9, 1978

Japanese Seek Area Plant Sites

State officials tonight will wine and dine nine Japanese businessmen who arrived here today to begin a three-day search of the Midstate for automobile manufacturing plant sites.

Commissioner Thomas D. Benson of the state Department of Economic and Community Development said representatives of Nissan Motor Co. are spending a week in Tennessee as part of a 30-state tour to find potential locations for a Datsun auto factory.

The group was in Memphis Monday. Tonight they will be the guests of honor at a reception hosted by Gov. Ray Blanton at the Governor's Mansion, with dinner following at the Opryland Hotel.

Benson said the group, which includes both technical analysts and corporate managers, is looking for 250-500 acres relatively close to a metropolitan area.

He was less specific on the number of workers that would be employed in a plant. "I'm hesitant to say how many people they will employ," he said. "They hedged when I asked them that."

Benson said he was told last fall that the company would make a decision within five years. "Just guessing. I'd now say that they will make a decision in 12-15 months."

Benson said the foreign businessmen probably will narrow the site selection down to four or five locations and then come back for more detailed information.

Before construction began, the Nissan plant site was a patchwork of plowed fields, meadows, and woodlands. In this aerial photograph, U. S. Highway 41-70 is at bottom.

From the beginning, Tennessee was among the more than twenty-five states being looked at by the Nissan survey teams, and it remained an attractive choice as the list narrowed. Another study group visited the Memphis and Nashville areas in the spring of 1978, and after Governor Alexander's election the following fall, he sent a delegation to Tokyo for more talks.

Masahiko Zaitsu headed the next Nissan mission to the U. S. in August 1979. It was the first of the company's C-30 planning teams, and in retrospect it can be seen as representing a shift in the status of the U. S. project from feasible to probable. Three months later, Alexander led a Tennessee delegation to Japan, and before the year was out a second Zaitsu group had been back in Tennessee for another look around the Nashville area.

By the beginning of 1980, it was clear to Tennessee officials that their state was among the final three or four on Nissan's list. In their many visits, the Japanese had developed a real affinity for Tennessee. They had found its people to be friendly and hospitable, its geography and climate similar to Japan's, its general style of living attractive. There were business advantages too: a central location, good transportation facilities and routes, a trainable work force.

But one thing was missing, and it was essential: an ideal plant site. Repeatedly, the Tennesseans had shown potential locations to the visiting study teams, only to have them politely conclude that they should keep looking. The Japanese had gradually refined their requirements. They wanted about 400 acres of flat land within fifty miles of the Nashville airport and readily accessible to a railroad and an interstate highway; it must have an adequate water supply and other necessary utilities, and its subsurface foundation must be firm and stable. Lacking such a site, the Japanese might well choose another state.

In late February of 1980, the third Zaitsu mission came to Nashville for yet another round of site visits.

Preliminary survey teams from Nissan first began looking for a plant site in the United States in the early 1970s. Tennessee was on the list of states visited by those teams, and always the delegations took back favorable reports about this state. The Zaitsu mission came here twice in 1979. I was a member of that team. Then we came a third time in February 1980, and by then we were looking primarily in Ohio, Georgia, and Tennessee. We were quite fascinated by this area of Tennessee and by the people here, but up until then we had not been able to locate a satisfactory plant site, although Joe Davis and Fred Harris and others had been most helpful to us.

On that February day, they drove us out here to see this new site they had found. We got out and looked around, and we were all favorably impressed. The land was comparatively flat, and there was solid rock underneath—an excellent base for heavy machinery. We asked Joe and Fred to get more information for us, and although we were very reserved in our comments, I think they could tell that we liked the site very much.

Later, when Governor Alexander had talked to the owners and they had agreed to sell, Mr. Runyon came and made his own survey, and he and Mr. Zaitsu then recommended to Mr. Ishihara that a choice be made between Smyrna and one of the sites in Georgia. In October, the NMMC board of directors decided at last to build the new plant here in Smyrna. Those of us who had served on the search missions were very happy with their decision.

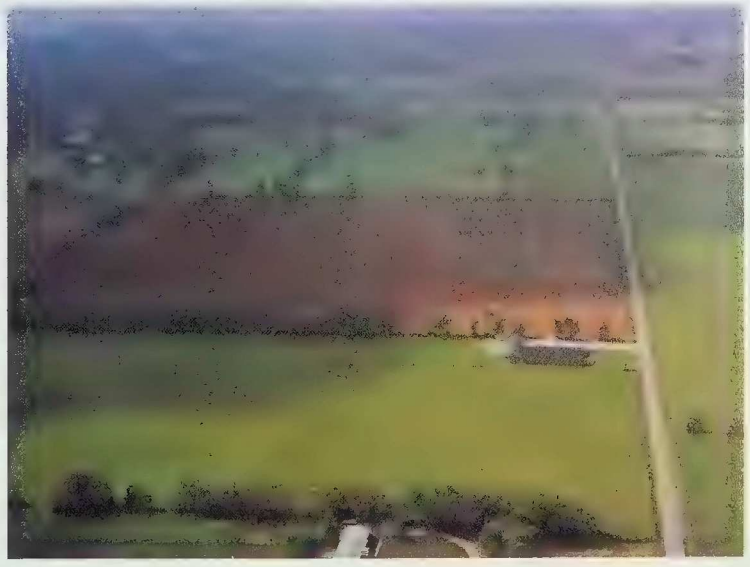
Shozo (Scott) Shimizu
U. S. Project Office (C-30)
Nissan Motor Company, Ltd.

Their principal hosts, Joe Davis of the Tennesee Department of Economic and Community Development and Fred Harris of the Nashville Area Chamber of Commerce, showed them two or three sites in the Nashville area and then drove them to see a dairy farm near the town of Smyrna. Its 433 flat acres lay atop a bedrock of Tennessee limestone; the L&N Railroad and Interstate 24 were close by; the Nashville airport was sixteen miles away. The Japanese visitors were restrained in their comments, but they lingered to look at the land for an extended time.

In April, Nissan officials announced in Tokyo that they had decided to build a facility to manufacture pickup trucks somewhere in the United States. They did not say so at the time, but the primary sites then under consideration were in Tennessee, Georgia, and Ohio, and the Smyrna site was near the top of the list. With the help of Governor Alexander, Tennessee officials were able to persuade the owner of the Smyrna dairy farm to consent to sell it. Later, when Nissan decided it wanted at least 200 more acres, an adjoining farm was also made available, again with the aid of Alexander's personal diplomacy.

Serious negotiations to bring Nissan to Tennessee then began. In July, Nissan Motor Manufacturing Corporation U. S. A., the new subsidiary that would make the trucks, was formally incorporated. Zaitsu, meanwhile, had recommended to his president, Takashi Ishihara, that retiring Ford Motor Company executive Marvin T. Runyon be named president and chief executive officer of the new entity, and on August 1, Runyon started to work as the company's leader and its first employee. A short time earlier, Ishihara had flown to Tennessee to see the Smyrna site for himself, and Alexander, who was attending the Republican National Convention in Detroit, passed up a luncheon date with presidential candidate Ronald Reagan in order to fly home and serve as Ishihara's host at the governor's mansion.

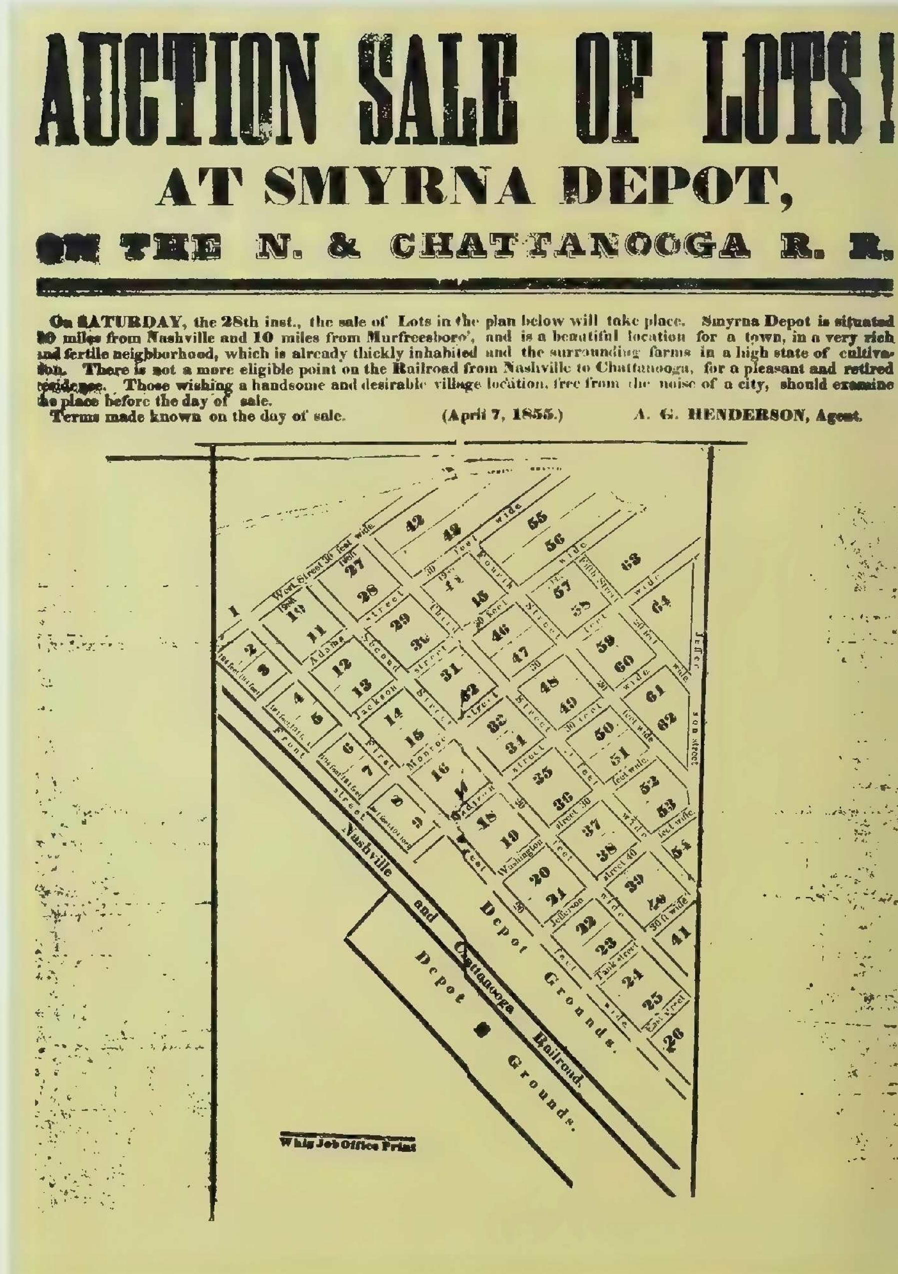
While the visitors from Nissan were becoming familiar with the Smyrna site, herds of dairy cattle roamed its green pastures.



Runyon lost no time in taking charge. He made it clear that the choice of a site was still open, and he personally looked elsewhere in Tennessee and in other parts of the Southeast for potential locations. In September, it was announced that the Smyrna site and two tracts near Atlanta were the only three still under consideration. Through the hot summer months, intense negotiations had continued in the two states. In Tennessee, Runyon and a small group of advisers that included business consultants W. D. Eberle and John V. Moller of Washington and attorney William P. Johnston of Nashville hammered out tentative agreements with officials of the state, Rutherford County, and the town of Smyrna.

"Runyon was a great negotiator for Nissan," said Joe Davis. "He took command quickly and gave great leadership. He's got a gambler's cool nerve, and a classic poker face that you can't read. He knows how to clarify complex issues. It was an incredibly thorough process—and when it was all over, I think everybody felt good about it."

Finally, the Tennesseans could do nothing but wait. On October 1, Runyon was joined in the company's temporary headquarters outside Detroit by his personal choices to fill two key vice presidencies: Alvin G. Folger for engineering and Jerry L. Benefield for manufacturing. The two men had spent a total of fifty-one years in management positions with the Ford Motor Company. A transportation study was ordered to determine whether the Tennessee or Georgia sites offered any relative advantages on incoming and outgoing freight shipments. Runyon and Zaitsu met in early October with Ishihara in Tokyo, and an October 30 date was set for announcing the final site decision. Nissan was actively pressing forward, but the Tennesseans, having done all that was in their power to do, could only bide their time and try to be both patient and confident. The autumn days dragged slowly by, until at last Marvin Runyon picked up a telephone in Dearborn and called the good news to Tennessee.


AUCTION SALE OF LOTS!

AT SMYRNA DEPOT,

ON THE N. & CHATTANOOGA R. R.

On SATURDAY, the 28th inst., the sale of Lots in the plan below will take place. Smyrna Depot is situated 20 miles from Nashville and 10 miles from Murfreesboro', and is a beautiful location for a town, in a very rich and fertile neighborhood, which is already thickly inhabited and the surrounding farms in a high state of cultivation. There is not a more eligible point on the Railroad from Nashville to Chattanooga, for a pleasant and retired residence. Those wishing a handsome and desirable village location, free from the noise of a city, should examine the place before the day of sale.

Terms made known on the day of sale. (April 7, 1855.) A. G. HENDERSON, Agent.

For almost a century, Smyrna was strictly a railroad town, and laboring men like this crew, pictured in front of the depot in 1920, worked the line and lived in the village with their families.

Since the time of its creation 130 years ago, Smyrna has always been a rural community, a fairly typical Tennessee country town. Even so, the biggest events in its history have been decidedly non-agricultural.

The first such event was the founding itself. The owners of the newly opened Nashville and Chattanooga Railroad wanted a whistle stop in the countryside between Murfreesboro and Nashville, so they laid out a few streets and lots on some land they owned, and in 1855 they sold the lots at public auction. Nearby was the Smyrna Presbyterian Church, so named for an early Christian outpost in Asia (now Turkey) that is mentioned in the Bible, and the church's name eventually became the town's.

In time, the automobile followed the train through Smyrna, and a concrete ribbon called the Dixie Highway (U. S. 41-70) was the town's main street. Between the coming of steam engines and gas engines, armies of the Union and the Confederacy advanced and retreated through Smyrna on horseback and on foot. One of the martyred heroes of the Southern Rebels was young Sam Davis of Smyrna, who was hanged as a spy by Federal forces.

In the aftermath of war, Rutherford Countians turned again to the land for their livelihood, and few of them were as successful as James Jackson Ward. He had been one of the county's wealthiest men before the war, the owner of a 2,000-acre plantation east of Smyrna (not far from Sam Davis's homeplace) that was said to include some of the best farmland in Middle Tennessee. Jack Ward continued as a leading farmer in the area after the war, and when he died in 1886, his descendants (he had nine children by two wives) had acquired more land through him than Ward himself had held in his antebellum heyday.

Two generations later, another big event in Smyrna's

history came to pass when the broad, flat fields around the town attracted military men looking for a place to build an air corps training base. The year was 1941; the United States was about to enter World War II. At the time, Smyrna had 493 residents. The builders moved in and developed a facility that sprawled over 3,300 acres. It was later named Sewart Air Force Base in honor of Major Allen J. Sewart Jr., a U. S. pilot who lost his life on a bombing mission in the Pacific in 1942.

But Smyrna outlasted the war and the air base, and somehow it still kept its country size and its country ways. In 1960, the town had a population of 3,612. (It also had a mayor, Sam Ridley, who had come home from the war in Europe as a much-decorated hero, and had won election to an office he would still be holding when Nissan arrived in the 1980s.) Smyrna added about 2,000 people in the 1960s and 3,000 more in the 1970s, but it was still spoken of as "a sleepy little town" when Nissan became the latest and largest new development in its history.

Nissan didn't exactly come to Smyrna by accident, but its presence is at least in part a result of unanticipated good fortune. The company's fact-finding missions to Tennessee and other states had been in progress for at least five years before Smyrna ever entered the picture—and even then, the site that was eventually chosen seemed at first to be unobtainable.

Brothers John (left) and Ira McDonald of Smyrna, great-grandsons of James Jackson Ward (in portrait), remember when their ancestor's plantation home stood on the present Nissan plant site.

Opposite page: Trains still pass daily through Smyrna, but they no longer dominate the community's economy. Four big developments have highlighted the town's history: the railroad, the Dixie Highway, Sewart Air Base, and the latest, Nissan Motor Manufacturing Corporation U. S. A., shown here on the horizon.

Joe Davis and Fred Harris, the two Tennesseans chiefly responsible for assisting the Nissan representatives in their search, concluded in February 1980 that since all available industrial sites in the Nashville area had proved to be unsatisfactory, it would be necessary to look for additional tracts that met the company's criteria. Methodically, they pored over dozens of quadrangle maps in search of 400-acre blocs of flat land in close proximity to the interstates, the railroads, and the airport. Several possibilities emerged, most of them in the level farmland of Rutherford County. Davis and Harris researched the deeds and titles of the parcels and determined that one in particular was especially promising: an almost square, 433-acre dairy farm on J. S. Young Road, two miles southeast of Smyrna.

Later in the month, the two men took the Zaitsu task force to see the land. They drove in a van to a church parking lot on Young Road, and Joe Davis remembered later the group's reaction:

"There was a fresh snow on the ground, and it covered the flat land like a white tablecloth. The Japanese task force members were clearly interested in the site. They didn't say much to us, but they talked among themselves, and they wanted to stay and look around for quite a while. That night, Fred and I concluded that this site was Tennessee's best hope—maybe its only hope—for getting the Nissan project."

The farm was operated by a dairyman for Maymee Miller Cantrell, who lived in Waverly, a hundred miles west of Smyrna. Mrs. Cantrell, a businesswoman and former schoolteacher, had inherited the farm from her father, and it had prospered under her management. When she was asked if she might consider selling it, she politely but firmly refused.

A few days later, Mrs. Cantrell received a call from Lamar Alexander, and the governor subsequently paid a visit to her home. She prepared a key lime icebox pie and

A major portion of the Nissan plant site was purchased from Mrs. Maymee Miller Cantrell, whose father, James Robert Miller, was an officer here in the old Smyrna Bank and Trust Company.

a pot of Russian tea for the occasion, and they sat in the dining room—Mrs. Cantrell and her husband Harvey, Governor Alexander and his travel companion, former circuit judge Thomas G. Hull—and talked about land and industry and the future of Tennessee. When they parted, the governor had promised to help find a new dairy farm for Mrs. Cantrell and her tenant, and Mrs. Cantrell had promised to grant Nissan an option to buy her Smyrna land.

Within a few months, Nissan had also indicated an interest in the farm of Richard and Kathryne McClary, adjoining the Cantrell tract, and once again Governor Alexander went on a personal mission to win their consent. It was a difficult task; the farm had been in Mrs. McClary's family for a century, and the couple, having lived there themselves since 1944, wanted to stay. Nevertheless, they listened to the governor's appeal, and at length they agreed to consider selling a 200-acre section of the farm

Richard and Kathryne McClary sold a portion of their farm to Nissan and then moved their house to a new location nearby. Mrs. McClary's great-grandfather, James Jackson Ward, once owned more than 2,000 acres in the area, including most of the Nissan property.

and moving their Victorian-era farmhouse to a location they would retain nearby.

The Cantrell and McClary parcels in combination would make nearly 650 acres available to Nissan. They would also bring back under single ownership some Rutherford County tracts that in the nineteenth century had been part of one large farm—the cotton plantation of Mrs. McClary's great-grandfather, James Jackson Ward.

Additional lands eventually would be added: an adjacent tract belonging to Mayor Ridley and others, a racetrack and campground totaling approximately forty acres, and about a dozen smaller parcels. Some of the land was deeded to the state for a highway interchange, some to the L&N Railroad for extension of spur lines and sidings. Nissan ended up with 782 acres, for which it paid roughly twice the going rate of $3,000 to $4,000 per acre.

Early in the fall of 1980, when Marvin Runyon had taken command of the Nissan effort and the Smyrna site remained in primary consideration, it was time for all the interested parties to determine precisely what arrange-

ments would be necessary if Nissan should come to build the plant.

For an enterprise of such magnitude to be developed, a complex set of legal, financial, and political questions would have to be resolved, questions having to do with such diverse subjects as water, sewers, zoning, roads, taxes, bonds, police and fire protection, job training, and environmental preservation. It would take a substantial amount of time and money to put into place the infrastructure necessary to support a major industrial project such as Nissan had committed itself to build, and the numerous beneficiaries had to determine what their respective investments should be.

In addition to Nissan itself, the governments of Smyrna and Rutherford County and the state of Tennessee each had a direct interest in the project. In a complex series of agreements worked out over a period of months, the parties reached final consensus on a joint funding plan designed to share the support costs as equitably as possible in the event that the site was chosen. Among other things, the plan included an industrial revenue bond issue by the county, a schedule of utility rates, a connector road from Interstate 24 to the plant site, an innovative job training program to maximize employment opportunities for Tennesseans, and incorporation of the site into the Smyrna city limits. The lion's share of the costs were covered by Nissan through a package of regular bond payments and taxes. All the parties benefited; for example, the state of Tennessee's investment of about $25 million in roads and job training was more than matched by Nissan-related tax revenue increases before the plant had even begun to make trucks.

"All in all," said Sam Ridley, "Nissan will be a tremendous asset to the city, the county, and the state. We negotiated an agreement that is entirely fair and satisfactory to all concerned. Nissan will pay its own way, and a lot more. There is no way to calculate how much their presence will mean to us."

Almost without exception, the response to Nissan's approaching presence in Tennessee was favorable. Some fears of runaway industrialization and urbanization were expressed, but the area's representative in Congress, Albert Gore Jr., seemed to speak for the overwhelming majority when he declared that the coming of Nissan would bring "a thousand positives for every negative."

One other muted criticism occasionally surfaced; it had to do with the remembrance of war between the United States and Japan. Participants in that tragic conflict

Governor Alexander at a Nissan assembly plant in Japan

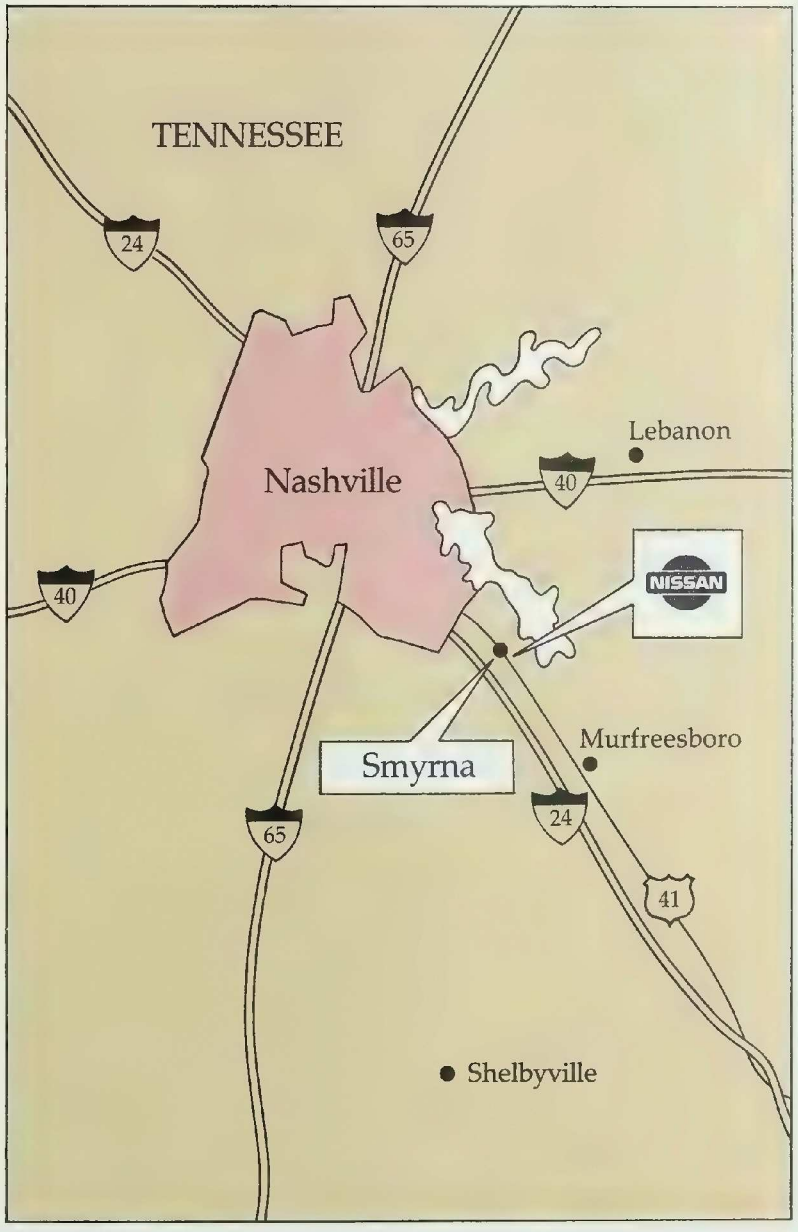
We Tennesseans have much in common with the Japanese. Our people are hard-working and loyal, and the Japanese respect that because they're that way too. Tennesseans have a strong sense of family, and so do the Japanese. Tennesseans like the outdoors, and Japanese history and culture are completly intertwined with nature. They like to tell stories, and they have a good sense of humor, and so do the people of Tennessee. If you draw a latitudinal line around the world, it'll pass near Tokyo and Smyrna. Our maples change colors at about the same time as theirs, and our dogwoods and their cherry trees bloom at about the same time too. Their most popular flower, the iris, is our state flower. When I was driving in their mountains, I was reminded of our Smokies. While Nissan's decision to come here was based on sound business judgments, I'm sure these personal qualities and things we have in common must have had something to do with it.

Lamar Alexander
Governor of Tennessee

of the 1940s could be found now on both sides of the Pacific, in Tokyo and Tennessee, and in Rutherford County a few of them saw a bitter irony in the fact that a Japanese industrial giant would be coming to set up shop almost within a stone's throw of a former U. S. air base. But by far the most people, including many with first-hand memories of the war, seemed inclined to view the coming of Nissan as further evidence of a firm friendship between Japan and America that had grown steadily stronger for more than thirty years. Said one American who was closely involved in the Smyrna negotiations: "This is a new day, and the world is a very small place." That attitude of reconciliation was dominant on all sides.

Tennessee had long since adopted such a view in its search for new industry. Under Democratic and Republican governors, the state had been courting Japanese businesses for six years when Nissan came to Smyrna, and the results were impressive: In addition to Nissan, a dozen other Japanese companies had operations in Tennessee in the early 1980s. The Nissan project was the largest manufacturing investment ever made by a Japanese company in the U.S. or anywhere else outside of Japan, and the largest by any new industry in Tennessee history. Combined with the others, it also gave Tennessee one-sixth of all Japanese industrial investments in the United States.

Little Smyrna, with its population of 8,500, had pulled out the biggest plum of all, and most of its residents were delighted with that achievement. On October 30, while the political leaders of Smyrna and Rutherford County and the landowners whose property would become the plant site were meeting in Nashville with Governor Alexander and the top officials of Nissan, signs of satisfaction were going up in shop windows of the Smyrna business district. "The Datsuns Are Coming!" one announced. Another summed up the town's feelings in two words: "Thanks, Nissan!"



Back in Michigan on the day after the Nashville gathering, employees of the new American auto maker, Nissan Motor Manufacturing Corporation U. S. A., went to work on the massive task of building a new company and a new production facility from scratch. At that point, NMMC had a total staff of fewer than a dozen people.

But Marvin Runyon, the president and chief executive officer, had been on the job for three months by then, and he had already set in motion several programs that would dominate the company's initial stage of existence.

The parent company in Tokyo, in its search for a president, had wanted a man with extensive experience in all phases of the American automobile industry. That person, once chosen, would be given the widest possible latitude to develop not a Japanese company in the United States but a U. S. company of Japanese parentage. Explained Masahiko Zaitsu: "Most Japanese companies with American subsidiaries have relied on Japanese managers to run these enterprises. We decided to try a different way; we would hire the most experienced American manager we could find, and give him a free hand to build an American company with American leadership and American workers."

In Marvin Runyon, they got one of the auto industry's most skilled and respected executives. He had gone to work for the Ford Motor Company as an hourly employee in its Dallas, Texas, assembly plant in 1943, and with the exception of two war years in the air corps, he had stayed with Ford continuously until 1980. He had earned a degree in management engineering from Texas A&M College in 1948 and then had begun his rise through the ranks of management. In 1957, when he was just thirty-three years old, he was made manager of planning and engineering to build a new Ford assembly plant in Lorain, Ohio, and eight years later he was named manager of the company's Norfolk, Virginia, plant. From 1969 until his retirement in 1980, Runyon responded impressively to no less than a dozen new administrative assignments that covered virtually every executive job in Ford's North American operations.

That range of involvement made Runyon especially attractive to Nissan. So did his long tenure with one company—thirty-seven years—and his age: Runyon was only fifty-six years old when he retired, and in the eyes of the Japanese, as well as in his own view of himself, he was at the peak of his leadership and creative abilities. Barely a month after his last day at Ford, he took command of the newly incorporated Nissan Motor Manufacturing Corporation U. S. A.

NMMC was organized under a streamlined board of directors made up of just four people: Takashi Ishihara, the parent company's president; Kaichi Kanao, an executive vice president in Tokyo; Masahiko Zaitsu, who had directed the initial planning for the U. S. project; and Marvin Runyon himself. The board outlined four objec-

The four-member board of directors of Nissan Motor Manufacturing Corporation U. S. A. alternates its meetings between Tennessee and Japan. From left: Marvin Runyon, Takashi Ishihara, Kaichi Kanao, and Masahiko Zaitsu.

tives for the new subsidiary company, and gave Runyon the responsibility and the authority to achieve them. These were the goals:

1. To establish a five-year business plan and take all necessary steps to carry it out successfully;
2. To establish and maintain a level of quality in the new company's products equal to or better than the quality of Nissan's Japanese-made products;
3. To work continuously for cost reductions that will keep product prices competitive and company profits sufficient;
4. To apply the advantages of Japanese management methods as positively as possible in the new setting.

The product of NMMC—light-duty pickup trucks—would be designed in Japan, and Japanese vice presidents would join the new company from Tokyo to oversee modifications in product design and overall quality assurance. But four other vice presidents—for engineering, manufacturing, finance, and human resources—would be Americans, and all six would be responsible to Marvin Runyon.

At the beginning of October, Runyon's hand-picked vice presidents for engineering and manufacturing, Al Folger and Jerry Benefield, began their new jobs. Both had spent long years in the Ford organization. Folger, a fifty-nine-year-old engineer, had held a number of top management posts in the company, and at the time of his retirement he was Ford's worldwide director of plant engineering. Benefield, at age forty, was manager of Ford's Dearborn assembly plant prior to joining Nissan. Like Folger, he was a graduate of Georgia Tech; like both Folger and Runyon, he was a native Southerner who had risen through the ranks to the upper levels of the Ford management chain. Benefield's father and grandfather before him had spent their careers with Ford.

"Benefield and Folger came to me when I took this job," Marvin Runyon recalled, "and others did too—good

Left: NMMC's first headquarters offices were on the 30th floor of the Town Center Building in Southfield, Michigan.

NMMC vice presidents Jerry Benefield (left) and Al Folger were the first executives Marvin Runyon hired when he became president of the new company in 1980.

people who wanted to try something new and challenging. This was a once-in-a-lifetime opportunity—not just a new plant, a new startup, but a whole new company with a new management style and a new operating philosophy. The most important question facing me when I was considering this job was whether I could find top-quality people like Folger and Benefield to make this venture a success. I had faith that I could, and I was right. They came looking for me before I had even begun, and they're still coming."

With the assistance of industrial recruiters and with their own extensive knowledge of auto industry personnel, Runyon and his two new vice presidents began to assemble the staff of specialists who in turn would screen and hire the plant's technicians.

Runyon had his own vision of the kind of company he wanted to develop and the kind of people such a company would require. In essence, he wanted to turn the traditional American corporate hierarchy on its side, generating a lateral flow of information and work between managers and technicians. In the Japanese manner, he wanted more participation in the decision-making processes by all employees. Instead of multiple layers of management, there would be only five: a president, vice presidents, plant managers, operations managers, and supervisors. Instead of countless classifications of jobs on the plant floor, there would be only four types of technicians, and all would be encouraged to learn many jobs. This participative style of operation ran counter to the typical patterns followed by both management and labor in the United States, and Runyon was determined to make it work. He wanted a new departure from the established ways of organizing the American workplace.

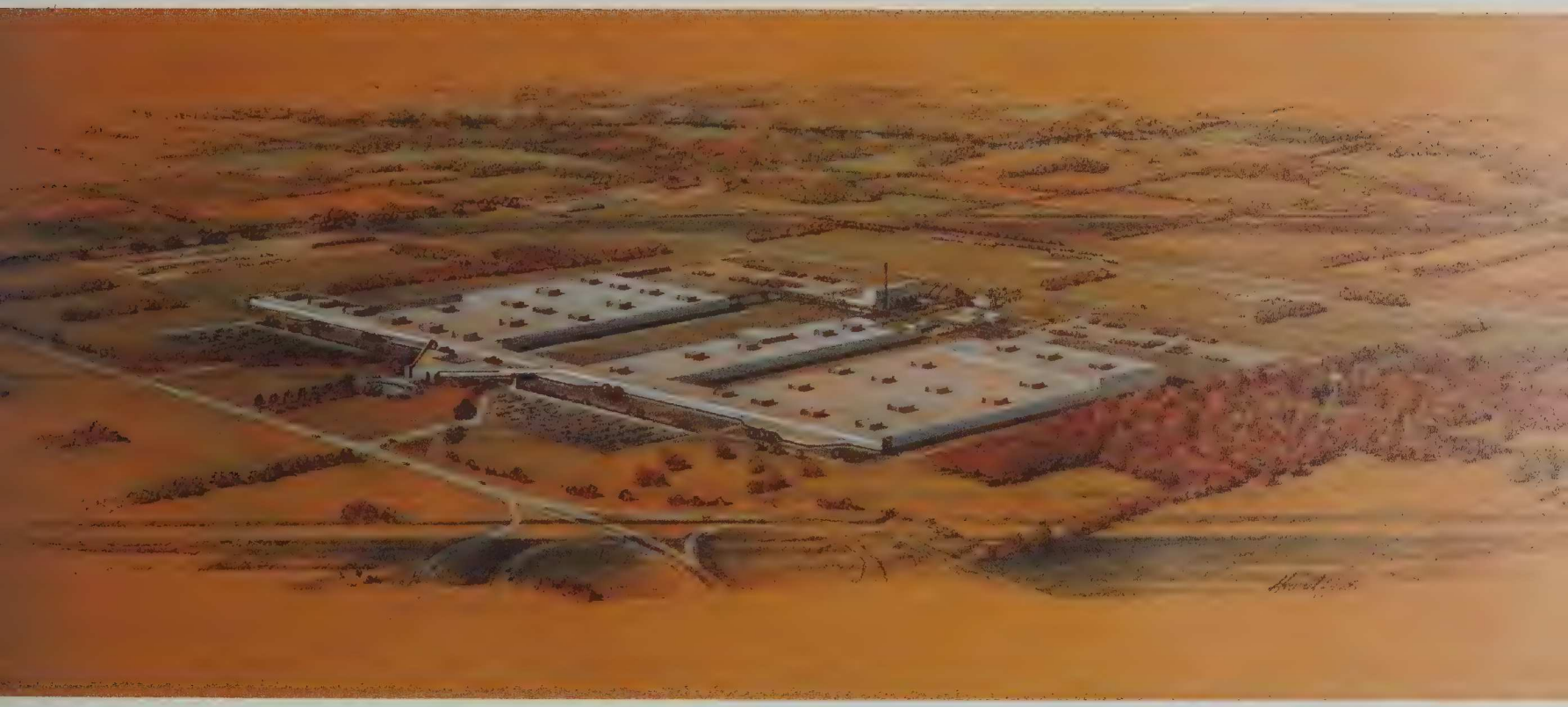
New departures were the very essence of this modern auto manufacturer's American enterprise; little wonder that its president would look beyond the old methods of operation that plainly had not kept U. S. producers ahead

Temporary offices for Nissan personnel were set up in barracks buildings of the former Sewart Air Base in Smyrna in January 1981.

of the rest of the world in motor vehicle production.

Soon after he joined Nissan in August, Runyon hired Albert Kahn Associates, Inc., a Detroit architectural and engineering firm, to design the Smyrna plant. He and Al Folger had worked with Kahn before, and they knew well the group's strengths in the automotive field. Months later, Runyon would choose Daniel Construction Company of Greenville, South Carolina, to be the general contractor.

In January 1981, the NMMC staff of about two dozen people began the move from Michigan to Tennessee. By the time they were settled into temporary quarters in the barracks buildings of the old Smyrna air base, their number had grown to almost fifty. Many of them would remain at the base until completion of the company's



Albert Kahn Associates, a Detroit architectural and engineering firm, produced this artistic rendering of the Smyrna facility in time to display it at NMMC's first reception in Nashville on October 30, 1980.

headquarters office building at the plant site in the summer of 1983.

A groundbreaking ceremony was planned for Tuesday, February 3, 1981, and as that date approached, the magnitude of the project and its impact upon Middle Tennessee became more and more apparent. An artist's rendering of the facility being designed by the Kahn firm showed three connecting plants and an adjoining administration building. The projected under-roof area was estimated at about three million square feet, and the total Nissan investment was being pegged at about $300 million. Within a year of its opening, according to the projections, the plant would be producing up to 10,000 trucks a month, and there would be approximately 2,000 people on the payroll.

Shortly before the groundbreaking date, a number of union members in the building trades protested the selection of Daniel Construction Company to build the plant. Daniel was an "open shop" company, hiring both non-union and union workers, and the protesters claimed that the South Carolina firm would pass over them in favor of non-union craftsmen. It soon became clear that a protest

Marie Yarzig with Japanese and American officials of Nissan outside the Southfield, Michigan, headquarters of NMMC on October 30, 1980. From left: Yarzig, Mike Kotake, Mitsuya Goto, Marvin Runyon, John Moller, Takashi Ishihara, Tom J. Satoh, Masahiko Zaitsu, Yasuhiko Suzuki, Yasuhiko Sadano, James Young, and Shigeki Uchiyama.

demonstration would be staged during the groundbreaking ceremonies.

On the day before the event, Marvin Runyon called together the entire NMMC staff for a briefing—all forty-eight of them—and he also informed visiting officials from Nissan in Japan that a protest was expected. And then, on a cold and sunny day, the small group of Nissan employees from Tokyo and Smyrna met in the middle of their Rutherford County pasture with Governor Alexander, Mayor Ridley, and several hundred other state and local officials and interested citizens for a symbolic ceremony of initiation.

Several hundred protesters also came. Their shouts and jeers drowned out the speeches of Runyon, Alexander, Ridley, and Masataka Okuma, an executive vice president of the parent company and leader of the delegation from Tokyo. An airplane flew overhead trailing a streamer that read: "Boycott Datsun: Put America Back to Work." The protesters' picket signs denounced non-union and foreign-made products, and during the speeches there were angry shouts: "Go home, Japs!"

Marie Yarzig: *I was working for a wholesale carpet company in the* Detroit area, which is where I'm from, when a friend set up an interview for me at this new company in town—Nissan. They hired me and put me to work on the same day I went in for the interview—September 16, 1980—and now, the only employee of NMMC who's been on the payroll longer than I have is Mr. Runyon himself.

My main job at first was to be the secretary for everyone but Mr. Runyon, but in those days everybody did everything, just whatever there was to be done. I can remember seeing Mr. Benefield work the switchboard on occasion. The months in Southfield and the early months here were pure chaos at times—by comparison, it seems very calm and orderly around here now. It's never been dull, though. My two and a half years with the company hasn't been a job—it's been fun, so much fun that I sometimes wonder if I'm doing all I should.

Right now, I'm a transporation analyst in material supply. Actually, I'm a travel coordinator—you might say I'm the company's travel agent. Working for Nissan has been a super experience right from the start, and I wouldn't trade it for anything.

A Datsun truck equipped with a snowplow was to be the groundbreaking instrument, but the demonstrators had slashed its tires. Runyon got into the truck and managed to move it forward a short distance, plowing up a small patch of turf. Little though it was, that slight turning of Jack Ward's plantation soil marked the physical beginning of Nissan in Tennessee.

In the aftermath of that tumultuous event, there was a general feeling that the protest had backfired. "What this place is about is jobs for Tennesseans," said Marvin Runyon, "but the demonstration was in opposition to that objective. A lot of anti-Japanese things were said, and the protesters did a lot of harm, but in the long run I think some good came out of it. At the very least, it made our company and the state of Tennessee more determined than ever to be successful in this venture."

Lamar Alexander expressed embarrassment and disappointment that the hecklers had given such a rude reception "to a company that will provide more than 2,000 new jobs, most paying over $20,000 a year." He added: "It would be hard to overestimate the importance of this new facility to the state of Tennessee. Nissan is one of the three or four leaders in what is becoming a global industry. Having their U. S. manufacturing headquarters here will not only be of tremendous direct value to us but will also be a magnet for other high-technology industries from around the nation and the world.

"Twenty years ago," the governor continued, "Mel Tillis wrote a great country song, 'Detroit City,' about the thousands of Southerners who had to leave home to find jobs in the assembly plants and factories of the North. Now, thanks to Nissan, many members of the present generation can stay here and get those high-paying jobs, and some of the ones who had to go away before can come back home. That's not a cause for protest. It's a cause for celebration."

Linda Feuerbacher: *I grew up in Manchester, here in Middle* Tennessee, and I had a job as a legal secretary in Nashville when Nissan announced that it was going to build a big plant in Smyrna. Right then and there, I decided I wanted to work for them.

But first I had to find out where they were. Detroit seemed like the logical place, so I called information and finally got a number for Nissan in Southfield, a Detroit suburb. Pretty soon I was talking to a Mr. Uchiyama, who was very nice. He said they were always looking for good people, and he asked me to send him a resume. A couple of weeks later I was invited for an interview in Nashville, and then, right before Christmas, they called and told me I was hired.

My first day was to be January 5, but in the meantime I had been asked to buy some office supplies for the staff people who would be opening a temporary headquarters on that day. So I went into an office supply company in town, just walked in off the street, without any Nissan identification or instructions on who to send the bill to or anything, and the man smiled at me and said, "No sweat. You can charge anything you want. We're delighted to have your business." It was a total act of trust. They not only sold me the supplies on credit—they delivered them the day we opened to the office.

During the first few months I worked as Mr. Runyon's secretary and for several other administrators, and since then I've held a variety of staff jobs. I'm an assistant in organizational development now. I'm learning a lot about the company, and enjoying the challenge very much. I'll always be glad I made that phone call to Detroit.

The long prelude to construction thus ended here on a February day in 1981. In a sense, it had lasted for seven years, beginning with Nissan's first U. S. task force in 1974; in a more direct and continuous way, it had gone on since the previous October 30, when Nissan had made formal and final its decision to come to Smyrna. Now, on these level fields, a multitude of highly skilled men and women from far and near—the majority of them from Tennessee—would combine their talents to create, in less than a thousand days, the world's newest and most advanced automotive manufacturing and assembly plant.

MEMORANDUM February 2, 1981

TO: ALL STAFF

FROM: Mr. Marvin T. Runyon

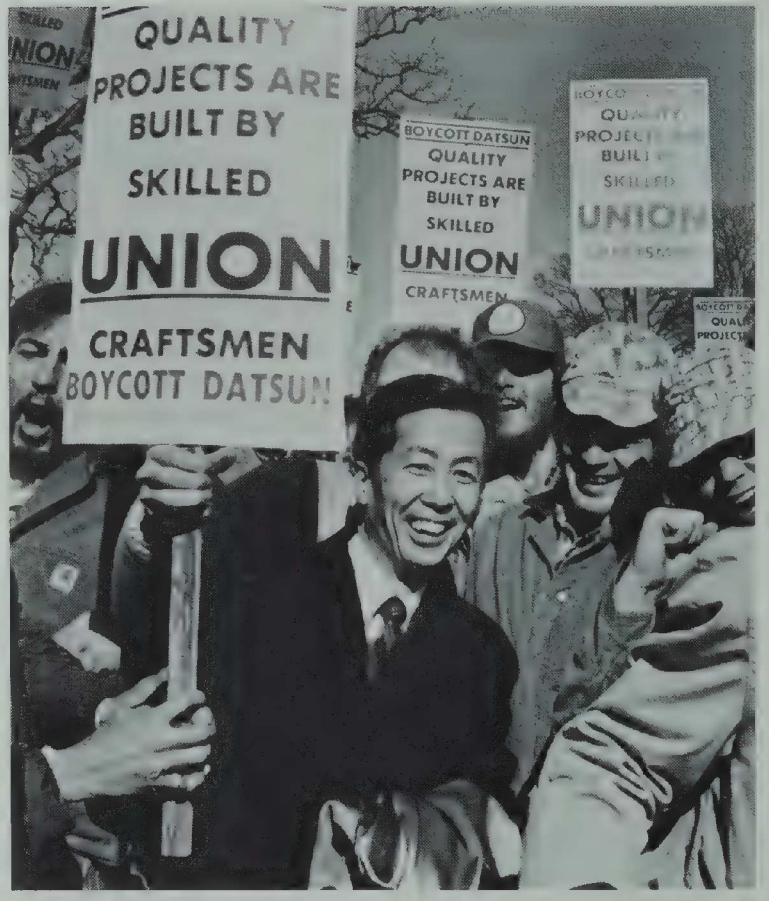
Mr. Runyon requests that *all staff* meet today in the conference room in building 307 at 3:30 p.m. for a briefing on the groundbreaking activities tomorrow.

Thank you.

lsf

When this memo was written, it was still possible for the entire staff of NMMC to assemble in a small conference room. There were forty-eight employees on the company payroll at that time:

Gregory J. Adamczyk	Marvin Hays	Thomas C. Posch
Karen N. Adcock	Albert O. Heindryckx	Dorsey C. Reed
Jerry L. Benefield	Joseph J. Kieltyka	Robert D. Roosma
Norman A. Bennett II	Hans A. Kindler	Marvin T. Runyon
Richard R. Brown	Robert R. Luster	Ronald L. Russell
John E. Bryan Jr.	Russell B. Mabrey	Hal R. Spruill
Kenneth J. Cruickshank	Elizabeth C. Marley	Frank D. Stanley
Hubert W. Ellis	James A. McCormack, Jr.	Ronald E. Straub
Linda S. Feuerbacher	David W. Miller	Robert E. Taylor
George E. Flintosh	Kathleen Mitzner	Kathryn C. VanDeven
Alvin G. Folger	Edward Moosekian	Penny J. Watson
Robert A. Frinier	Jeffrey A. Morgan	Paul B. Wendell
Daniel A. Gaudette	Bob L. Mullins	Jennifer B. Woodside
Hugh G. Harris Jr.	Joann H. Olesko	Cheryl J. Wright
Pamela H. Harris	Juanita B. Payne	Marie R. Yarzig
Emil E. Hassan	Daniel B. Ploger	Gary A. Zalac

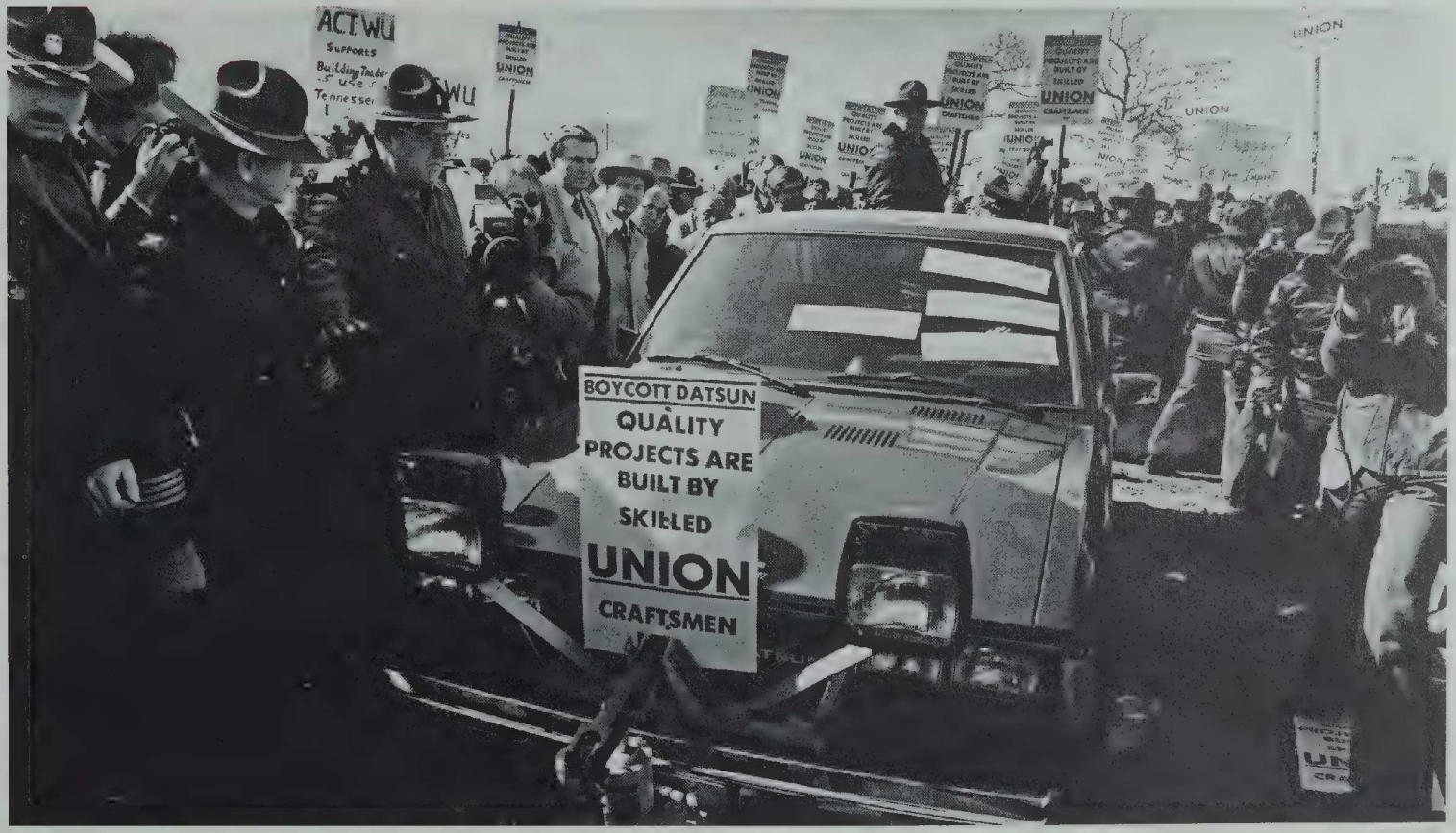


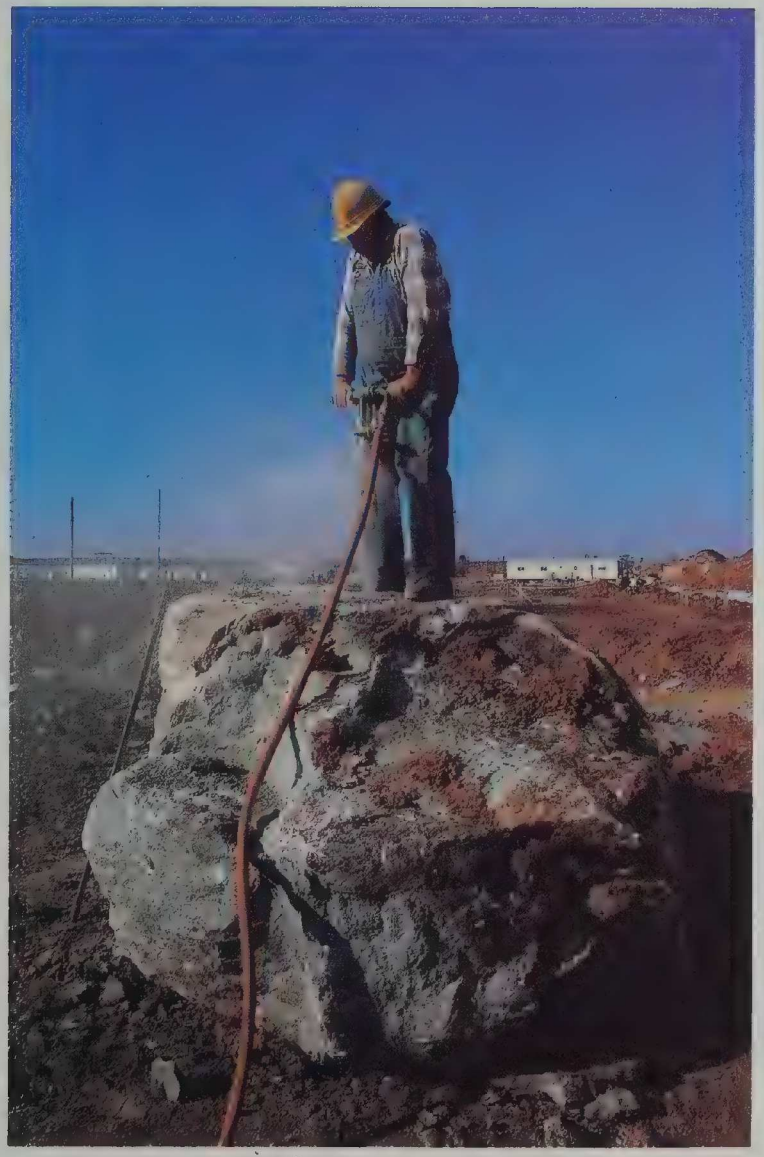
One of our top executives was supposed to drive a Datsun pickup truck parked outside that had a plow attached up front. That was supposed to be our groundbreaking. But we had difficulty in getting to the truck because of all these tall picketers. I really had to wade through them saying, "Excuse me, let me go through." When I finally got to the pickup truck, some of the construction union men, hearing a Japanese with a smattering of English. suddenly became very friendly towards me. Some of them tried to put their arms around me, and one guy shouted, "Hey, let this guy carry our placard." Another guy just shoved his placard in my hand, and I looked up grinning. That's when this doggone picture was taken.

Mitsuya Goto
General Manager, Public Affairs
International Division
Nissan Motor Company, Ltd.

(quoted from a speech to the Japan-American Society of Chicago, July 21, 1982)

Under a red and green tent, officials of Nissan, Smyrna, Rutherford County, and the state of Tennessee took part in groundbreaking ceremonies at the plant site on February 3, 1981. Then, driving a Datsun truck equipped with a snowplow, Marvin Runyon broke the frozen earth while Governor Alexander and others watched and law enforcement officers held back a pressing throng of protest demonstrators.





Above and opposite: Work begins at the Smyrna site.

The goal could be stated simply: to blend the best features of the Japanese and American automotive industries into a new corporation fully competitive with its contemporaries in the international marketplace. Reaching that goal would take the best efforts of every person and organization associated with Nissan Motor Manufacturing Corporation U. S. A.

Six months after Marvin Runyon accepted the challenge to lead Nissan's first manufacturing venture in the United States, the job of physical construction began. But the task of constructing an organization, of staffing it, of developing a corporate operating style, and of designing a facility to house the new entity had begun the day Runyon assumed the presidency of NMMC.

"There's no how-to-do-it book for something like this," he observed later. "From my own experience I had a basic idea of the kind of facility I wanted, and the executives of Nissan and I were in perfect accord on the kind of company we wanted to create. They gave me the responsibility and the authority to discover the best ways to proceed—and I simply went to work one day and got started."

Runyon's first major decision brought in Albert Kahn and Associates to turn general ideas into specific shapes and forms. "They've been designing auto plants for a long time," he explained. "We knew their reputation for excellence, and we knew several members of the firm personally, having worked with them before." Kahn's president,

Dan Shahan, and several of his associates first consulted with Runyon in the plant-site selection process and then, early in the fall of 1980, went to work on the preliminary design.

Their starting point was a general description given to them by Runyon, with additional input from Al Folger and Jerry Benefield and from Nissan in Japan. It called for three essentially independent but interconnected buildings—one for body, frame, and stamping, another for paint, and a third for trim and chassis. A fourth building, to house the corporate headquarters of NMMC, would adjoin the plants, and other structures, such as a coal-fired boiler house, also would be built. In combination, these facilities would be enormous, covering more than seventy acres, but the objective was to design them as separate units that could be managed and operated more or less independently. At the same time, the design had to take into account the need for future expansion of the entire facility as the company grew.

As the preliminary design work proceeded, Runyon named John E. Bryan Jr., a Tennessee manufacturing company official, to be vice president for human resources, NMMC's top personnel officer. All four of the young company's executives would be intimately involved in the time-consuming process of finding and hiring the expert help they would need to create an entire corporation from the ground up.

Early in 1981, the search for a general contractor was concluded with the selection of Daniel Construction Company. The South Carolina-based builder of major projects around the world had no prior experience constructing automobile plants, but it had the range of skills and the manpower to handle the job, and the quality of its work on a wide variety of projects was well known. On the Nissan undertaking, Daniel would face an especially difficult challenge: a "fast-track" construction schedule under which the design and building processes would be tele-

Dan Shahan (right), president of Albert Kahn Associates of Detroit, on one of his Tennessee visits with (from left) Sam Ridley, mayor of Smyrna; Marvin Runyon, NMMC president; and company vice presidents Jerry Benefield, Al Folger, and John Bryan

Daniel Construction Company and its subcontractors took on the mammoth building project.

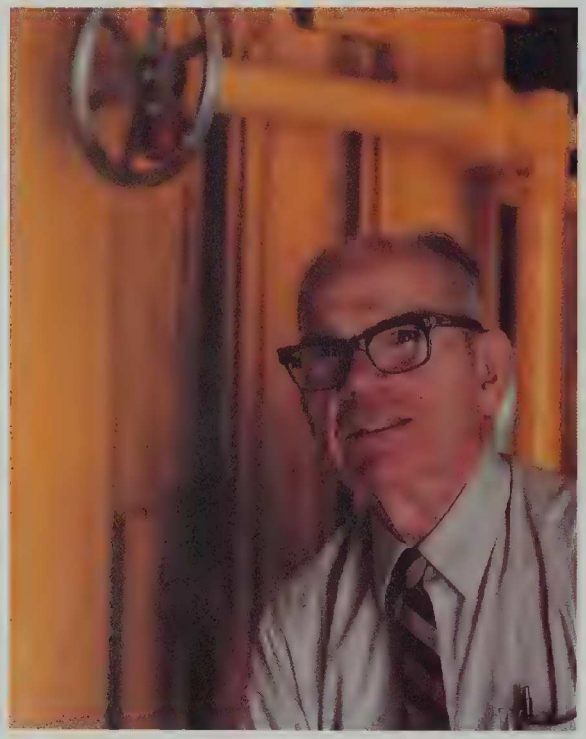
NMMC construction manager Al Heindryckx (right) with members of Nissan's C-30 team from Japan

scoped into an abbreviated time span. Instead of working from a completed set of Kahn plans, Daniel would get its detailed blueprints in stages as construction proceeded.

The three principal functions of NMMC in its early months of existence—design, construction, and staffing—quickly brought into the picture a large number of people representing various organizations and areas of expertise. In addition to the primary group of permanent staff members recruited by Runyon and his vice presidents, there were waves of others; temporary consultants to the new company, architects and engineers from Kahn, builders from Daniel, and task forces from Nissan's Japan operations. A paramount responsibility for Runyon and his rapidly expanding NMMC staff was to select these diverse groups and individuals and to coordinate their efforts.

It was a massive task. Scores of consultants would come and go throughout the construction and tooling phases. The Kahn organization's involvement would be intensive and continuous, with upwards of a hundred of its architects, engineers, and drafters contributing to the design. The Daniel company and more than 200 subcontractors working at its direction would put a peak total of nearly 4,000 construction workers on the site by May 1982, and over the life of the project they would employ an aggregate of about 5,000 people. And, the Nissan parent company's U. S. project office would rotate a core group of advisers and consultants in and out of Smyrna for about three years. The organization that Runyon and his associates were building from scratch thus faced the necessity not only of recruiting its own staff but also of planning and directing the work of these other major participants.

Nissan's C-30 task force headed by Masahiko Zaitsu provided a direct communications link between the Tokyo home office and NMMC. Small numbers of specialists in all phases of operation, from construction and tooling to



John Moseley: *My folks moved to Missouri from Kentucky in* 1915, when I was a small boy. I went to college out there, and in 1933 I got a job as an hourly employee at the Ford Motor Company's assembly plant in Kansas City. The first fourteen of my forty-two years as an engineer with Ford were spent there. After that, I helped with the start-up of two plants in the Los Angeles area, spent sixteen years there, and then worked in Detroit and in Germany.

My wife and I were living in retirement in Michigan when Bob Roosma called and asked me if I'd like to come down here and help them with the layout of this plant. That was in 1981. I came and took a look, thought about it some, and decided to do it. I was thinking six months—but when we go back to Michigan this summer, I will have worked here for two years.

A good many retired engineers like me have worked on this project as consultants, specialists on temporary assignment. Nissan wanted experience, and we brought plenty of it. I may be the oldest one in the bunch—I'll be seventy-four in August—but there have been several others close to my age.

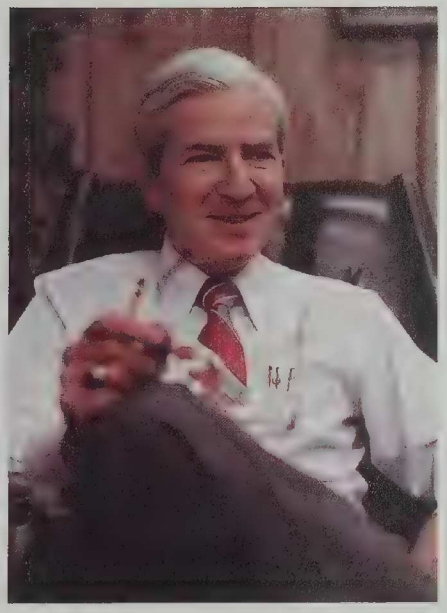
All my life I've been making things, building things. It's been a challenge, and I've enjoyed it. When this opportunity came, I felt like it'd be good to try my hand again—and it has been. I did the preliminary layout for the whole central maintenance shop, and a lot of engineering design work too. When somebody needs you to do a big job and you can come in and do it, and do it well, it gives you a nice feeling.

NMMC vice presidents Sydney Yoshida (left) and Mike Kiyota

the training of technicians, came to the Smyrna facility as their expertise was needed. In a later stage of the process, after groups of NMMC employees had been to Japan for training, Nissan would send launch assistance teams to Tennessee to polish the newly acquired skills of the technicians and their supervisors. These C-30 functions kept a relatively small number of parent-company representatives in Smyrna throughout the development of the subsidiary, but fewer than a dozen would become permanent employees of NMMC.

Early in 1981, Marvin Runyon named two experienced members of the C-30 task force to his small circle of vice presidents. Shuichi (Sydney) Yoshida, a veteran of twenty-three years in the Nissan organization, became vice president for quality assurance, and Masuo (Mike) Kiyota, who had been with the company for twenty-one years, was made vice president for product design. Two other Nissan officials, Yoshikazu Hanawa, a specialist in

Yoshikazu Hanawa (left) and Shigenori Asano, special advisers to NMMC



James H. Stewart, NMMC's vice president for finance and administration

personnel administration and finance, and Shigenori Asano, an engineer, were chosen to serve as key advisers to the NMMC administration.

One more top executive, James H. Stewart, joined the new company in February 1981 as vice president for finance and administration. In his extensive career as a financial officer for a number of corporations in the Midwest, Stewart had compiled an impressive record. At NMMC, he and John Bryan would be the only upper-level administrators from outside the automotive industry.

With each new addition to the Nissan staff, the pace of recruitment and employment seemed to quicken. Before the company moved its headquarters from Michigan to Tennessee, about two dozen permanent employees and a number of temporary ones were hired. In January 1981, when the relocation took place, the staff had doubled; by summer, the number had climbed to more than 200. Among the new employees were directors in the engineering division assigned to build and equip the three plants, managers of the plants, and directors for such key functions as material supply, personnel, computer systems, and fiscal control.

Engineers were the most urgently needed professionals in the beginning, and engineering vice president Al Folger assembled a highly skilled and experienced team. His initial group of directors, managers, and assistant managers, all of whom either began working for NMMC at its temporary headquarters in Southfield or joined the company in Tennessee before the end of February 1981, included Kenneth J. Cruickshank, Marvin Hays, Albert O. Heindryckx, Paul H. Holzapfel, Lawrence N. Hunter, Hans A. Kindler, Russell B. Mabrey, James A. McCormack Jr., David W. Miller, Bob L. Mullins, Daniel B. Ploger, Robert D. Roosma, Ronald L. Russell, and Ronald E. Straub. Consultants Victor Pantano and Gene Tesone were also key members of the group. All but two of these spe-

Jeff Morgan *had gone to work as an engineer for Ford right out of Ohio State University in 1975, and five years later, in the midst of hard times for the automobile industry, he was laid off. He spent a month looking for another job—and then, out of the blue, Nissan came looking for him:*

I didn't even know they had an office in Detroit. This was about mid-December, 1980. One of their recruiters called me one day, and I went for an interview. They made me a job offer three days later, and I started to work two weeks after that, on January 5, 1981. The day after I started, the whole office went to Japan, and I stayed behind to study the Japanese process sheets and try to figure out how they built trucks. Marvin Hays came on board right after that, and we divided up the puzzle—he took the body shop and I took the frame shop.

Within three weeks I was gone to Japan myself—the first of five trips, totaling four months—and as soon as I got back, I moved to Tennessee. All that happened to me within ninety days. It was amazing. I wasn't thirty years old then.

I have had a tremendous experience in the past two and a half years—in engineering and technology, and also in language and culture and personal relationships. I've never seen as much talent amassed in one place, American and Japanese talent. If we listen to one another and learn from one another, Nissan will excel.

Engineering vice president Al Folger (second from left) with three of his top associates (from left): Bob Roosma, Dan Ploger, and Ron Straub

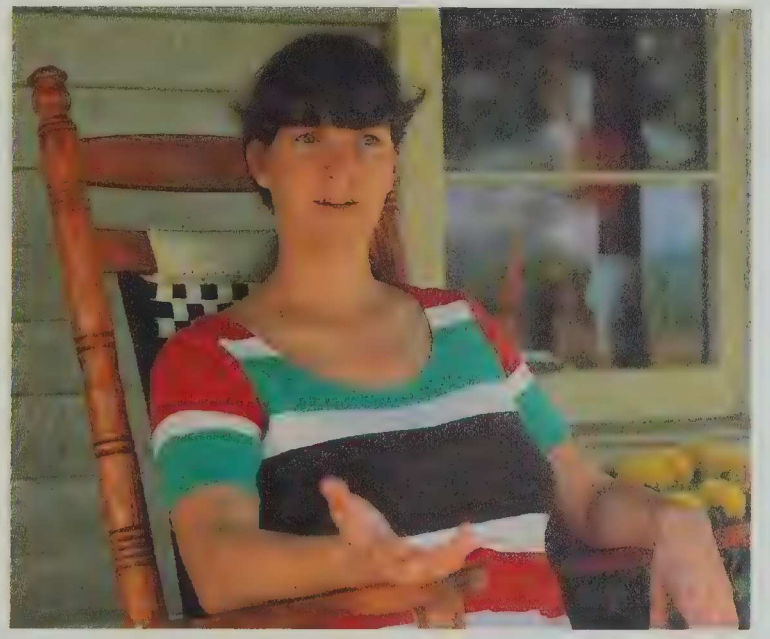
cialists in the various disciplines of engineering came to NMMC from Ford.

Recruiting specialist Bill Warren of Indianapolis, whose firm worked under contract with NMMC to bring more than three dozen upper- and middle-management professionals into the Nissan ranks, pointed out that experience in the automotive industry, a necessary prerequisite for most of the leadership positions, could only be found in a handful of American companies. Warren was instructed by Runyon not to recruit at Ford, but dozens of Ford employees came on their own to apply. "They sought out Nissan because they knew and respected Runyon and Folger and Benefield," he said, "and they were impressed with the new venture these men were leading in Tennessee." Warren, a native of Middle Tennessee himself, said one of the most satisfying aspects of his special assignment for NMMC was "finding some very talented former Tennesseans in the auto industry who simply wanted to go back home."

Material supply director Bob Frinier (left) with plant managers Emil Hassan, Joe Kieltyka, and Rick Sommer.

In manufacturing as well as in engineering, Nissan struck gold at Ford. All four of Jerry Benefield's directors formerly worked there: Frederick F. Sommer, manager of the body, frame, and stamping plant; Emil E. Hassan, manager of the paint plant; Joseph J. Kieltyka, manager of the trim and chassis plant; and Robert A. Frinier, director of material supply. Offsetting the large proportion of automotive executives coming aboard were others in key positions who came from outside the industry, among them George E. Flintosh, director of management information systems; Robert E. Wright, controller; Hugh G. Harris Jr., Hubert W. Ellis, and Lawrence G. Schlosser in human resources; and Gail A. Kreusch, corporate legal counsel. Holder-Kennedy, a Nashville public relations firm, was also retained, and Sue G. Atkinson, the agency's executive vice president, became a principal adviser to the company.

All in all, the bringing together of experienced professionals from around the nation and the world to develop a



Libby Marley *spent her childhood summers on a farm in Williamson County, Tennessee, and the memory never left her. The land had been in her mother's family for the better part of a century, and the reverence they held for it rubbed off on Libby. She was a Michigander—her father, and later her mother too, were Methodist ministers there—and she went on to Wellesley College, where she majored in English. But even though she continued to live in the urban North and East, her rural recollections kept pulling her away:*

I longed for Tennessee in the summer; my heart had always belonged to Tennessee. I finally moved here in 1977, got a job in Nashville, and a year later I married Joe Marley, a Williamson County blacksmith.

Near the end of 1980, a friend from Michigan called and said Nissan was coming. It sounded like a good place to work, so I went to Nashville as soon as they got here and applied, and in January 1981 I was hired.

I was Al Folger's secretary at first, and then I went into purchasing, working with Hans Kindler, buying equipment for the plants. It was all new to me, but they gave me an opportunity to learn and grow, and I made the most of it. I've bought millions of dollars worth of equipment for the company, handling the purchases from beginning to end. For a Wellesley English major, it's a unique profession, and I love it.

Now I've got a fast-paced job and country tranquillity—the best of both worlds. The plant is just twenty-five miles from home. This is the Tennessee I love. I finally came back to it, and I'm here to stay.

Gail Kreusch, NMMC's corporate attorney

contemporary motor vehicle manufacturing and assembly facility—and a new company in the bargain—was an enormous undertaking. Architects, designers, builders, engineers, production specialists, support personnel—separately and together, as individuals and as a team—contributed significantly to the development of Nissan Motor Manufacturing Corporation U. S. A. It was this relatively small but diverse and gifted team of Americans, with the vital assistance of a small contingent of Japanese industrial experts, that planned and directed the conversion of a Tennessee dairy farm into a truck-making marvel of modern technology in a period of just two years.

"On the face of it," said Marvin Runyon, "it might seem like a great risk for a Japanese company to come halfway around the world into an area of this country with no history of automobile making and build a competitive plant from scratch in a little over twenty-four months. But it was a calculated risk, based on a number of known qualities: American and Japanese technology, the best elements of two different management philosophies, automotive know-how from Japan and the U. S., and a strong work ethic among Tennesseans. It was a carefully considered move—and it's going to pay off."

By the end of 1981, NMMC would have a president, six vice presidents, three plant managers, almost a dozen other directors, and about fifty department managers—altogether, a management team of more than seventy members. Only a few such top-level positions would remain to be filled. The ranks were also filling rapidly in the next echelons of the company, and all the while, work was proceeding at a swift pace on the building of the facility. In those hectic months of accelerated activity on so many fronts, it was vitally important for NMMC to maintain the highest levels of coordination and communication.

The engineers in particular needed superior organization, facing as they did the first-priority objectives of building and equipping the plants and connecting them to the utilities and power sources that would activate them. But the demands of the fast-paced development multiplied rapidly in other areas of the company as well. More than a thousand technicians had to be hired and trained to build the trucks; policies and procedures had to be established in every department; channels of communication had to be developed; administrative and support personnel had to be employed; fiscal controls had to be maintained. The list seemed virtually endless. At times, the emergence of new tasks and challenges far outpaced the resolution of old ones. And nowhere were these mounting pressures more concentrated than upon the engineers whose first job it was to build the plant itself.

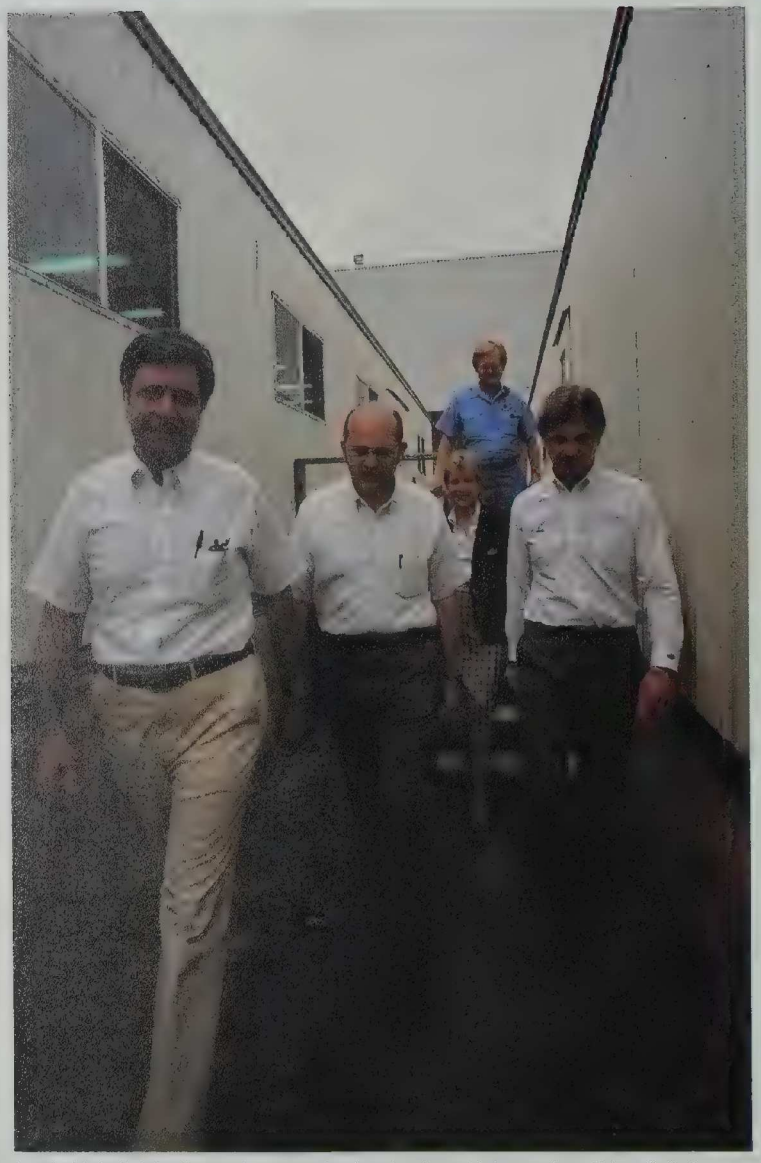
Engineering directors Bob Luster (left), Bob Roosma, and Ken Cruickshank

Marvin Runyon had first met Al Folger at the new Atlanta assembly plant of the Ford Motor Company when the two air force veterans worked there in 1948, Folger as an engineer and Runyon as an hourly employee. Their professional and personal association continued through more than three decades in the Ford organization. Runyon retired from his post as a vice president of the company in June 1980, and in August he took the lead in Nissan's new American venture. Folger retired from his position as director of engineering in September and joined Runyon at Nissan the following month.

"Marvin didn't recruit me," Folger explained. "He didn't have to. The prospect of going back to the South, where he and Benefield and I all came from, appealed to me very much. And I was strongly attracted to the challenge this new undertaking presented. I knew many architects and engineers who also recognized what a rare opportunity this was, and I was sure we could put together an outstanding team to build the plant."

The staff that Folger subsequently assembled was headed by Bob Roosma in facilities engineering and Ken Cruickshank in process and tooling. Robert R. Luster, who first came to NMMC as its budget manager, later moved over to Folger's staff as director of engineering administration.

Roosma, who had thirty years of experience building new plants for Ford, got his first exposure to the Nissan



Ken Cruickshank (left), director of process and tool engineering, with key members of his staff: Paul Holzapfel, Barbara Noonan, Jim McCormack, and Andy Kivilaan

Earthmoving at the site

project in October 1980 as a consultant for Albert Kahn. He had already made two trips to Japan when Runyon and Folger chose him to be the chief facilities engineer.

"The day after the groundbreaking," Roosma later recalled, "Al Folger and I came out here to the plant site with several of our key people—Ron Straub, our plant engineering manager; Al Heindryckx, manager of construction; Dan Ploger, manager of facility planning and design, and one or two others. It was a cold, wet day, a disagreeable winter day, but I remember that we were eager to get rolling—and in fact, the site preparation subcontractor was out here when we were, starting to work. That was really the beginning."

From that day on, activity at the plant site would increase without a let-up for almost a year and a half before it peaked. The massive task of building and equipping the structure involved countless thousands of decisions, instructions, specific steps, facts and figures. The

complex process was organized around four principal groups, each with its own special role to play.

First, Nissan in Japan provided a large base of information from its C-30 task force files and from the company's existing plants, particularly its modern pickup truck manufacturing facility on the island of Kyushu. These detailed plant layouts and other extensive contributions of data required frequent translation, conversion, and interpretation, since two languages and two standards of measurement were involved. Shigenori Asano came from Tokyo to serve as the parent company's chief consulting engineer for the Tennessee project, giving valuable advice on construction and tooling.

Next, the engineers and planners of NMMC, working closely with Asano and his assistants, combined the Japanese data with additional information and interpretations of their own and passed the files on to the third group in the rectangle of organizations: the Albert Kahn team of architects and engineers. First Harvey Schneider and then George M. Barbu coordinated the Nissan project for Kahn, supervising the work of resident engineers Joseph T. McDonald and William J. VanDyck in Smyrna and scores of specialists in Detroit.

Finally, the minutely detailed work plans produced by Kahn came back through the hands of the NMMC staff for review before being handed over to the fourth party: the builder, Daniel Construction Company. R. B. Jordan Jr., Daniel's project manager, and his own staff of professionals directed the accelerated building program from those work orders, which came to them in what must have seemed like an endless flood.

It was this cast of principal characters, this circuit of information, and this relentless pace that resulted in the development of the Nissan project in a remarkably short time. Exactly two years and two weeks after the tumultuous groundbreaking, NMMC would produce its first trucks on an experimental, trial-run basis.

Al Heindryckx *had retired from the Ford Motor Company in 1980 after managing about forty construction projects in a twenty-two year career, starting with the company's Nashville glass plant in the late 1950s. A native of Chicago, son of a Flemish butcher and his Polish wife, Heindryckx dropped out of high school and joined the Illinois National Guard in 1940, rose to the rank of captain in the airborne, and then went to college at Tennessee Tech after the war. His wife was a Tennessean, and their four children were born in the state. It was those Tennessee ties, as much as anything else, that finally brought Al Heindryckx to the Nissan project in Smyrna:*

I had bought a travel trailer, and my wife and I were planning a five-month winter stay in Florida, and then Al Folger started calling me and talking about building a plant for Nissan. I was very resistant to the idea at first, but then I weakened, and finally I gave in. We ended up getting a month in Florida, and I came to work here in January 1981. I agreed to stay eighteen months—but that was two and a half years ago. Now the plant is finished, and I'm finally leaving.

What's so unique and so amazing about this project is that this many people, most of them strangers, came together on a new site and built a huge plant on a fast-track schedule in two years, actually finishing two months ahead of schedule and very close to the projected budget. It's probably never been done before on a scale like this, except perhaps in the mobilization for World War II. Runyon and Folger pulled together people who knew how to get a job done well and on time, and then they turned us loose—and we did it.

There's an old saying in the construction trades: "The last job was the best one." This is my last job—and in many ways, it really is the biggest and the best.

After excavation of the press pit (upper right), reinforced concrete foundation piers were built (above). The erection of steel beams (opposite page) soon followed. NMMC's entire staff toured the site in July 1981 (right).

The site preparation work and other civil engineering functions that began the day after the groundbreaking extended into the first summer. Excavation and blasting into the bed of limestone was required to gouge out more than 600 foundation pits and trenches, after which concrete workers built sub-basements beneath portions of the plant floor. The deepest and largest of these was the press pit, a 55,000-square-foot area with three-foot-thick walls, floor, and ceiling; above it, massive stamping presses would shape various truck parts from rolled sheets of steel. Cuts to a depth of more than thirty feet beneath the surface were required to make way for the press pit, giving the plant a base in the limestone almost as deep as its roof would be high.

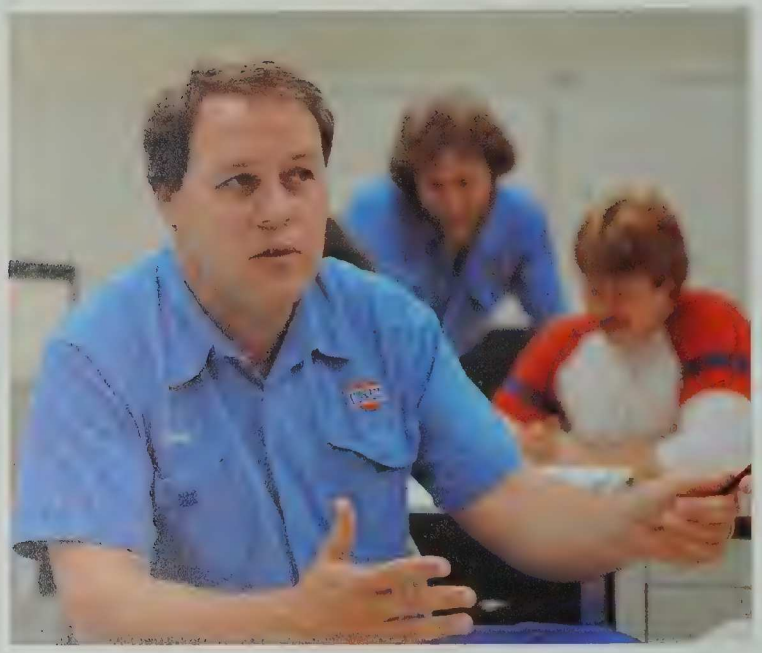
In less than six months, the burgeoning colony of skilled craftsmen had completed most of the initial concrete and utility work below ground level, and in July 1981 they raised the first skeletal beams of steel above the sur-

Cheryl Greenberg: *The first time I saw Smyrna was in 1949,* when I was a little girl. My father was transferred to the air base here from South Carolina, where I was born, and I've been living around here ever since.

Back in January 1981 I saw an article in the Murfreesboro paper saying that Nissan was moving its offices into the barracks at the base, and they were hiring secretaries. I needed a better job than the one I had, so I decided to apply. At the state employment office I filled out the form, but instead of just leaving it, I got real assertive—said I wanted to wait until someone could talk to me in person about the positions that were open. Finally, a very nice lady named Mary Armour came out to see me, and we had a good conversation. She told me Nissan needed an operator-receptionist, and I said I knew how, I had done that before. She sent me to interview with Pam Harris and Jenny Woodside, and two weeks later I was hired—and now, over two years later, I'm still here.

If you like people and like to talk, as I do, you can really get into a job like this. Sometimes it's hectic. I counted the calls into the switchboard one day about a year ago. We got about a thousand in an eight-hour period—and it was a slow day.

I've gotten to be friends with a lot of people on the phone, even though I never get to meet some of them in person. It's easy for me to recognize voices and remember numbers, and those things help. Nissan has grown so fast, it's a real challenge to keep up.



David Gore: *There are three primary computer systems in this* company. The largest, headed by George Flintosh in finance and administration, is for all NMMC business functions. The second, under Dave Offill in material supply, controls information regarding truck components and their movement into and through the plants, and related to it are computers in each plant to monitor the production process.

This is the third system. It's called NEMAC—Nissan Energy Management, Maintenance, Monitoring, and Communications Control System. It regulates a wide range of functions—electricity, lighting, security, humidity, fire alarms, water consumption, telephones, closed-circuit television.

This is a digital system, built from standard components by a high-tech manufacturer in Oak Ridge, and it's much easier to operate than the more commonly used analog computer systems. What you see here is aerospace technology applied for the first time in the automobile industry.

I grew up in Chattanooga and graduated from Georgia Tech. In the late 1960s I worked in data communication on a couple of the big rocket programs in aerospace. I was in the computer control business in Nashville when Nissan came to Tennessee in 1981, and a friend persuaded me to apply for a job with them. Ron Straub called me for an interview, and I got excited about the prospect of selling this concept to Nissan and designing the system to do the job.

We've been at it now for over two years, and the system has proved itself to be excellent in every way. Its potential applications are virtually unlimited. NEMAC plays an important part in Nissan's commitment to quality and productivity.

Fast-track construction put a major portion of the plant under roof within a year of the start of the project.

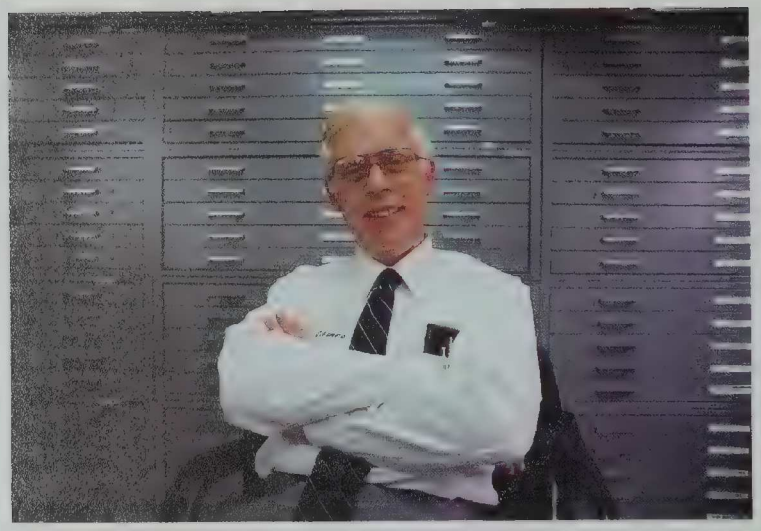
face. The occasion was observed with an inspection visit and tour of the site by all employees of NMMC and Nissan's C-30 group.

Pipefitters, electricians, carpenters, millrights, and other craftsmen came next as the NMMC engineers and their associates rushed to get a portion of the huge structure under roof before winter. With two ten-hour shifts working Monday through Thursday and a thirteen-hour shift working Friday through Sunday, Daniel kept construction going day and night, almost around the clock, in order to keep pace with the detailed plans flowing from the Kahn group in Detroit. As soon as sections of the roof were in place, craftsmen were there to install electric power and lighting, additional utility connections, and ducts for heating, ventilation, and air conditioning.

Outside the main plants, a 42,000-square-foot training center was completed in February 1982 and put into use immediately, preparing the newly-hired technicians to build trucks. Soon thereafter, work was started on three other adjacent or detached buildings: a power plant, a service parts warehouse, and a 210,000-square-foot administration building to serve as corporate headquarters for Nissan Motor Manufacturing Corporation U. S. A. Nearby, meanwhile, the L&N Railroad and the state of Tennessee were busy on two related projects: The railroad was extending a spur line to the plant site and building a rail yard there, and the state was constructing a highway interchange at U. S. 41-70 and a connector freeway to Interstate 24, three miles away.

It was also early in 1982 that NMMC's tool and process engineers under the direction of Ken Cruickshank were able to begin, after more than a year of planning and preparation, to install the sophisticated equipment and machinery that would be needed in the manufacturing and assembly plants. Drawing on his extensive experience as a tool specialist for both General Motors and Ford, Cruickshank recruited a team of more than fifty engineers

A new highway interchange at U. S. 41-70 (above) and an L&N Railroad spur to the plant site were started in 1981.



Carnes Hill: *It's been almost thirty years since I graduated from* Vanderbilt with a degree in mechanical engineering. I returned to Nashville in 1959 and spent five years at the Ford Motor Company's glass plant there. My wife and I are both natives of Sparta, seventy-five miles east of Nashville, and all three of our children were born in Tennessee, so Nashville has been like a second home for us.

But I worked for Ford in Michigan from 1964 to 1981, and in those seventeen years we came to think of it as our permanent home. I was the company's energy services manager when the latest recession set in, and non-automotive positions like mine were in jeopardy. I had worked for Al Folger, and this Nissan development looked interesting, so I called him. He needed an assistant manager for utilities. I took early retirement from Ford and came back to my home state in January 1982.

From a utilities standpoint, this is a very impressive facility—not only large but modern in every respect. We use as much water and electricity as a small city, but we're energy-efficient and highly automated, and we have applied the latest technology in anti-pollution and environmental protection controls. Our coal-fired boiler house is a model of safe and economical protection controls.

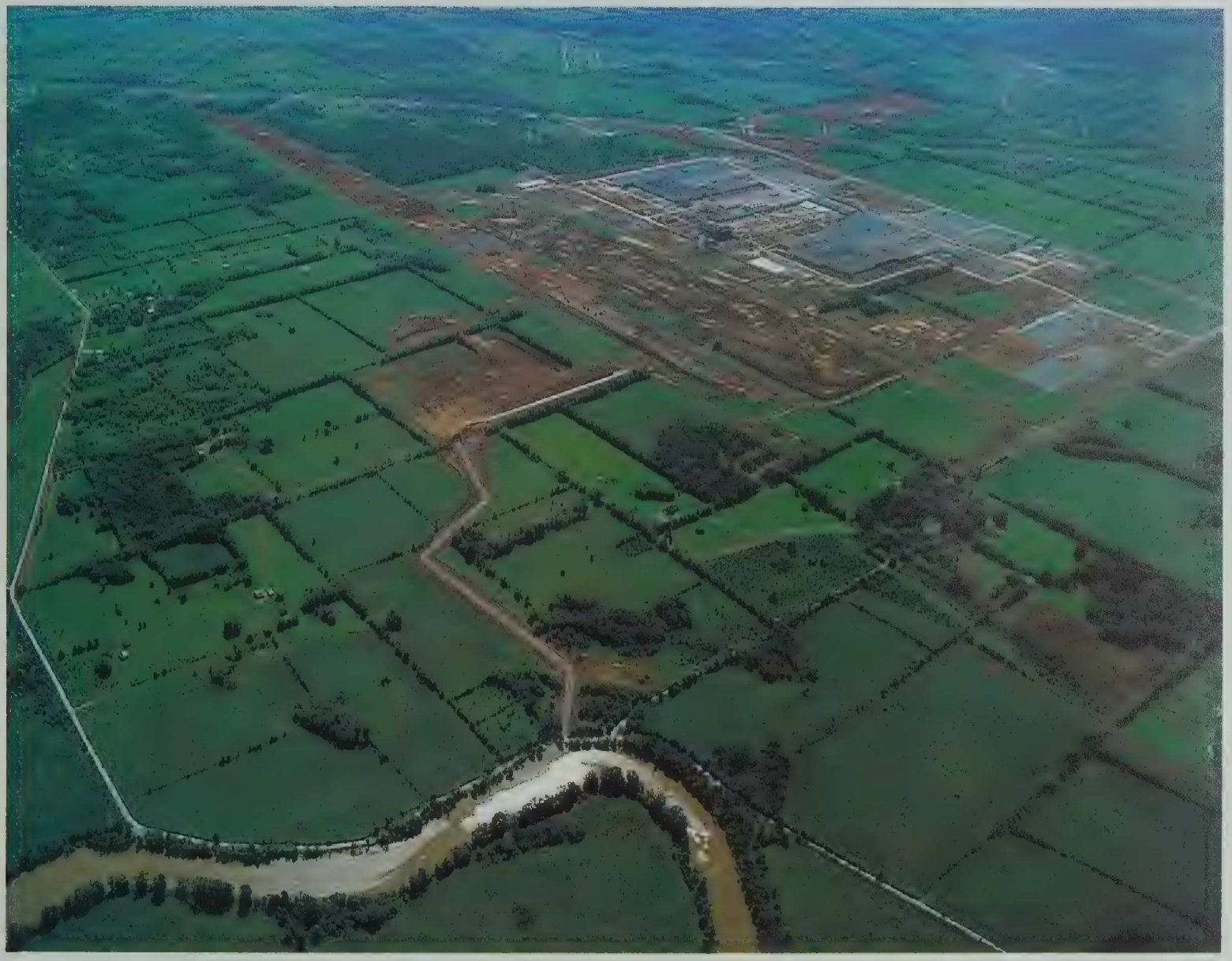
Returning to Tennessee certainly had its attractions, and so did this job. It's like starting a new career in a familiar place.

to specify, design, procure, and install the plant's truck-making and support machinery. Altogether, more than $270 million was spent on equipment, with U. S. firms providing about 60 percent and the remaining coming from precision tooling specialists around the world. Building on preliminary work started by Nissan tool and process engineers in Japan, NMMC's specialists equipped the new facility in a year's time—about half what would be considered normal for a task of that magnitude.

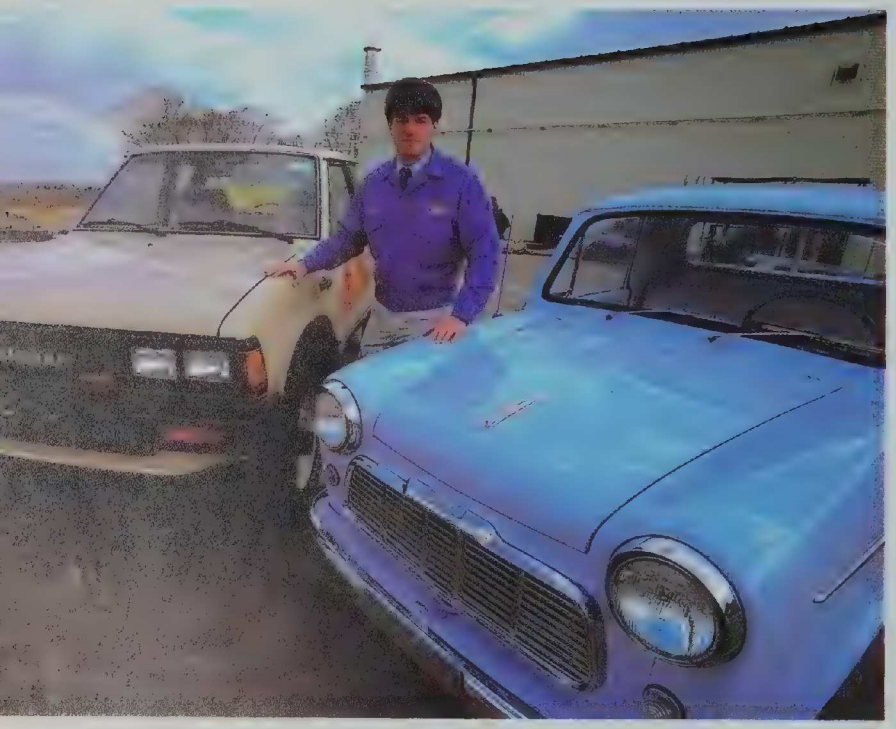
Into more than 3,200,000 square feet of floor space, the engineers brought a marvelous array of mechanical and electronic machinery, the latest in technological tooling: presses, cranes, balers, bake ovens, spray booths, eighteen miles of overhead and floor conveyors, sophisticated waste-disposal and anti-pollution devices, dozens of forklift trucks and tow tractors, and 220 robots to handle a variety of jobs, principally in welding and painting. Three primary computer systems were installed—one for use in the truck-making process, another for maintenance and communications, and a third for business operations—and they utilized the most up-to-date U. S. and Japanese technology.

The opportunity to begin at the beginning, with no pre-existing company or facility to be converted to a new pattern, gave NMMC a rare advantage, and that edge was especially apparent in the interior of the plants. Not only were they cleaner, quieter, more comfortable and attractive than the run of facilities in the industry worldwide; they were also more efficient, making wider use of robotics, automation, computers, and precision tooling than older plants could possibly make.

With a clean slate to work on, NMMC engineers had begun in December 1980 to draw a working layout of the new plants on a scale of one-sixteenth of an inch to one foot, and the following summer they had prepared a model twice as large. On sheets of quarter-inch grid squares—each block representing two square feet of floor



Green fields, country roads, and the west fork of the Stones River framed the Nissan facility in the summer of 1982.



Bob Brewster: *I was twenty years old when I graduated from* Eastern Michigan University with a degree in economics in 1977. Ann Arbor was my home, and some kind of job in manufacturing or labor relations was what appealed to me, so I went to work for the Ford Motor Company thinking I'd spend my career there.

It was an interesting place to work, but I loved them more than they loved me. The company was shrinking, and opportunities for someone of my age and low seniority were disappearing fast. When my boss, Larry Seltz, agreed to come here as Nissan's manager of training in the fall of 1981, I wanted to come too, and he hired me as a training specialist. I moved to Murfreesboro with my wife and two small children that September. Eight months later, I was promoted to assistant manager for manufacturing training.

We've been responsible for the preparation of technicians, setting up training programs for them both at this facility and in Japan, and we've also handled all pre-employment training. I worked on a couple of plant launches for Ford, but launching a company is a much more complex operation than launching a plant. This is the best seat in the house to watch all phases of it. It was a hard decision for me to leave Ford; it would be equally as hard to leave here.

Brewster with old and new Nissan products: a 1983½ king cab (left) and a 1959 standard pickup, one of the first 100 Datsun trucks sold in the U. S.

space—they laid out every work station and every piece of equipment in the entire facility. In one of the temporary trailer-offices the engineers occupied at the plant site, their layout stretched across work tables thirty feet long and fifteen feet wide. Such a graphic representation, with every inanimate object and every production person drawn to scale, permitted fine-tuning of the interior to achieve maximum efficiency, productivity, and safety.

Likewise, energy conservation and environmental protection could be more thoroughly addressed in a new facility than in an old one. Nissan's utility needs would be met through a combination of purchased services (water, sewage disposal, natural gas, welding gases, electricity) and on-site steam generation in a modern, highly automated, coal-fired boiler house. Using high-grade, low-sulfur coal trucked in from mines on the Cumberland Plateau, less than a hundred miles away, the boiler house would produce energy to heat and cool the assembly plants and to meet certain heating and cooling needs in the production process. The treatment and disposal of waste materials and other potential pollutants was also planned in detail and in advance, resulting in an overall performance level well above state and federal environmental protection standards.

The summer of 1982 was the peak of activity for both construction and tooling. (On a single day in June, 700

crates of equipment arrived.) Then, gradually, the tide began to shift away from the building of plants and toward the building of trucks. The temporary force of engineering specialists and others who had been brought in to apply their expertise to a variety of construction and tooling tasks slowly left the scene as their work was completed. Al Folger's crack team of master builders—permanent and temporary employees, retired consultants, accomplished younger men and women—worked toward the day when the fruits of their labors would be used by Jerry Benefield's truck makers to produce a line of vehicles fully competitive in every respect with others on the market, including Nissans made in Japan.

By the spring of 1983, NMMC had built its first trial-run trucks and begun the countdown to what its production technicians called "Job 1"—the beginning of commercial production. The massive labor force under Daniel Construction Company, having worked nearly 8.5 million hours on the site, had almost completed its assignment; so had the architects and engineers of Albert Kahn Associates and the C-30 task force and launch assistance teams from Nissan in Japan. Against the constraints of time, distance, language, culture, measurement, and communication, the Smyrna facility had been built and equipped from basement to rooftop in record time. Nissan had spent more than a half-billion dollars for land, buildings, and equipment—and amazingly, the job had been done on a budget that came within one percentage point of 1980 projections.

"We were able to reach out and attract outstanding people to this project," said Al Folger, "and they did a superior job in every respect. In all my years in the business, this is the most talented team of professionals I've ever known—and the most dedicated. They have succeeded brilliantly at an almost impossible task."

Jenny Woodside: *When I was nineteen, I left my little hometown* of Lobelville, in West Tennessee, and went to Nashville to look for a job. I didn't have any leads or much money, but I had a lot of confidence, and the first week I was there, I went to work for an insurance company. I lived a year at the YWCA, and ended up staying in Nashville for ten years.

Most of that time I spent at Firestone Tire and Rubber Company in Lavergne. They hired me first as a secretary, and I moved up to an interviewer of job applicants. But then I was laid off in May 1980, and several months later, when Nissan announced it was coming to Smyrna, I went to the state job service office in Murfreesboro and applied. On January 5, 1981, when the company opened a temporary office in Nashville, I was one of its employees.

Since then, I've had several different jobs in human resources. One of the most interesting in the beginning was setting up apartments for management people who were just moving into the area. I rented places, picked furniture, outfitted them with everything but groceries. I also recruited secretaries for the vice presidents, and since then I've done equal employment opportunity statistics, group insurance, just a variety of things.

Now I'm a recruiter of trim and chassis technicians—screening, interviewing, helping match skilled people to the company's needs. It's a long process, and you get very close to the applicants before it's over. The hardest thing is knowing that every good person you work with can't end up with a job here. The most rewarding thing is seeing other good people, many of them formerly unemployed, move through this process and get hired.

Almost as soon as the engineers converged on the Smyrna plant site to begin their work, another group of NMMC staff members started putting together the production force. The company would need about 650 technicians when it started manufacturing trucks in the summer of 1983, and the number would rise to about 1,200 when one-shift production capacity was reached in the spring of 1984. To locate, select, hire, and train the best such people available would be a principal task of administrators in the divisions of manufacturing and human resources.

The company made a commitment to fill at least 80 percent of its jobs with Tennesseans. Partly as a consequence of that decision, fewer than 5 percent of the production technicians who were hired had ever worked in a vehicle manufacturing plant. But thoroughly trained and highly skilled technicians were needed to operate the sophisticated equipment and machinery in the plant, and to get them, NMMC developed a carefully structured program of recruitment, application processing, interviewing, training, and phasing-in of new employees.

The company budgeted more than $63 million for the first three years of its employee training program. The state of Tennessee provided $7.3 million of that amount through its Industrial Training Service, an ongoing program in job skill development. The state also processed initial job applications to Nissan through its regional employment offices, and administered a preliminary aptitude test to all qualified applicants.

Nissan looked for at least eighteen months of prior experience in industry as a qualification for its production technicians. By January 1983, two years after the company's arrival in the state, approximately 100,000 persons had applied for jobs, and about 15,000 of them were found to have the necessary experience. From that latter group, about 8 percent would become the technicians chosen to build Nissan's first Tennessee trucks.

Extensive training in the use of robots (top) and other high-technology equipment began early and continues at NMMC.

Videotaping (top) is a routine part of the training process, and computers are a commonplace tool.

The long and competitive route to employment began with a simple application form completed in one of the state's job service offices. Then, those with the requisite experience came in by appointment to take a general aptitude test, after which initial interviews were scheduled with Nissan recruiters

"The national recession and high unemployment added to the very large number of outstanding applications we received," said James Dunlap, NMMC's plant employment manager. "Right from the first, we have had far more skilled and experienced people to choose from than we could possibly hire, and we have spent a lot of time trying to make the wisest choices."

Following the first interview, each applicant considered to be a prime prospect for employment was classified in one of several job categories. There were positions in direct production (specifically, in each of the three manufacturing plants) and indirect production (primarily material handling and maintenance), and there were also jobs in a variety of administrative, clerical, and service areas. As soon as positions were declared open, applicants from the appropriate job-category pool were invited for another round of interviews with panels of supervisors, and those who remained prime candidates were called again later to be interviewed by managers.

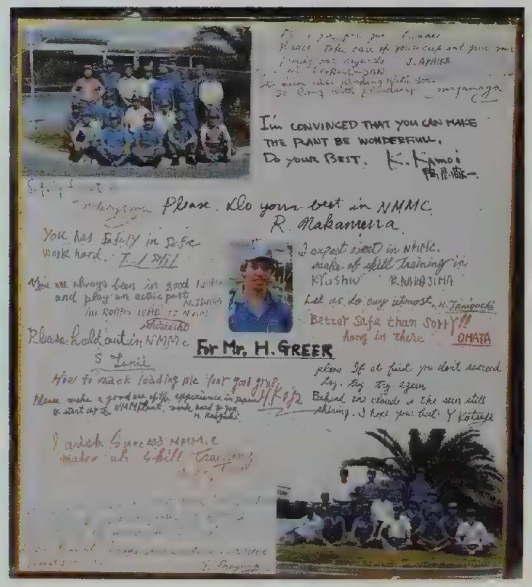
For those who sought technician jobs, the next phase prior to employment required a substantial commitment of time. In groups of twelve to fifteen, the applicants attended a succession of three-hour evening and weekend training classes for periods ranging from six weeks to a year. These uncompensated pre-employment sessions carried with them no promise of a job, although about 90 percent of the participants in the first eighteen months of the program did get hired. As part of the state's ongoing job training service, these classes provided specialty training in several industrial trades, telescoping long apprenticeships into a matter of months and certifying the

participants as job-ready workers, whether for Nissan or other employers.

"Our aim is to develop manufacturing technicians with competence in a wide range of tasks," said training manager Larry Seltz. "You can't just lock people into monotonous, repetitive, narrowly focused jobs and expect them to be content. We have a more horizontal structure, and it requires a lot of communication between technicians and managers. We want people to develop versatility, to be cross-trained for several jobs, and to be involved in problem-solving and job-improvement decisions."

Seltz, a one-time line worker and skilled craftsman as well as a manager in a number of new plant startups for Ford, described the Nissan approach as a blend of Japanese and American management styles. "New challenges and opportunities to learn and grow are very important to all of us," he said, "and training is the key. For us, it begins before you're hired and continues as long as you work here."

When the lengthy pre-employment training period



When the NMMC employees completed their training in Japan, they frequently were presented with sayonara *signature mementoes such as this one given to technician Hulon Greer (above).*

At Nissan's Kyushu plant in Japan, NMMC employees and their hosts worked closely together. Below, left: *Bobby Creighton with Masaru Miyanaga;* below: *Masumitsu Asada with Leland Manning.*

finally resulted in jobs for technicians, many of them were sent to Japan with other NMMC employees during 1981 and 1982 for periods ranging from a few weeks to several months. There, in Nissan's assembly plants and other facilities, they received first-hand instruction in their areas of specialization. Altogether, 383 employees of the new company, including 128 technicians, received part of their training in Japan.

An introductory orientation on Japanese language and culture and on Nissan's worldwide operations began the preparation for this unusual journey. Then, the NMMC employees were flown to Tokyo for more orientation and direct instruction in company procedures and practices, after which they were immersed in specialized training. Many of the technicians spent most of their time in Nissan's modern Kyushu plant, where virtually all Datsun pickup trucks were made. In that highly automated and technologically advanced facility, Japanese technicians and supervisors gave their American counterparts a thorough course of instruction in the machinery and methods of their jobs. Other NMMC employees trained elsewhere in the network of Nissan assembly plants, subsidiary units, and administrative offices.

For most of the Tennessee travelers, the Japanese experience was a completely original and unprecedented adventure. Many had never been outside the United States before; some had never flown on an airplane, and a few had never traveled beyond the borders of Tennessee. In the intensity of the assignment and the sharing of common experiences, strong and lasting friendships were formed, not only among the Americans but also between them and their Japanese hosts.

Back in the U.S., the NMMC trainees soon began to pass their new knowledge on to their fellow workers. They were aided in that effort by a continuously rotating sequence of Japanese launch assistance teams sent to Smyrna to support the new subsidiary.

Rodney Boone: *I'm a native of the Mobile area, and I got my* undergraduate degree in industrial management from the University of South Alabama. I went to the University of Tulsa for a master's in business administration, and then I worked for three years as a college recruiter for the Arkansas Power and Light Company in Little Rock. My wife and I wanted to get back to our home base in Alabama, though, and in 1974 I got a job as a recruiter of professional staff for a Swiss-owned chemical manufacturer in Mobile.

We would have been happy to stay there, but in 1981 my boss was hired by Nissan, and soon after he came here, I did too. The opportunity was just too attractive to pass up.

Now, for more than two years, I've been serving as manager of professional employment, coordinating the recruitment and hiring of salaried staff. It's been all I hoped it would be, and more. For someone in my line of work, this is a great job—a ground-floor opportunity with a new company that's already known for its advanced ideas in technology and management. I think other companies look at Nissan with a certain envy. While many of them have been struggling just to hold on to what they've got, we have hired several hundred outstanding people—and a large percentage of them came looking for us, rather than the other way around.

Joe Harrison: *After I finished high school in Fayetteville, Tennessee,* I spent four years in the navy. Then I got a job at Genesco in Nashville and went to night school at Nashville Tech, studying computers. I moved up with Genesco, but after six years I was ready for a change—and that's when I saw Nissan ads for programmers and systems analysts.

That was the spring of 1981. I sent in a resume and got a quick response. I was interviewed by Bob Worshik and Barry Miles, and then I was offered a job in MIS—that's management information systems, part of finance and administration. I started to work in September.

It's the same environment, the same equipment as at Genesco, but the work is different. There's an opportunity to grow here. I've had a couple of promotions, and I have more responsibility to design systems, rather than just analyze. This place really is different. You have more of a free hand, and more of a voice in decisions that are made. There's also a very close, friendly relationship among people in this department. It gives you a real source of pride, a motivation to do your best, to excel.

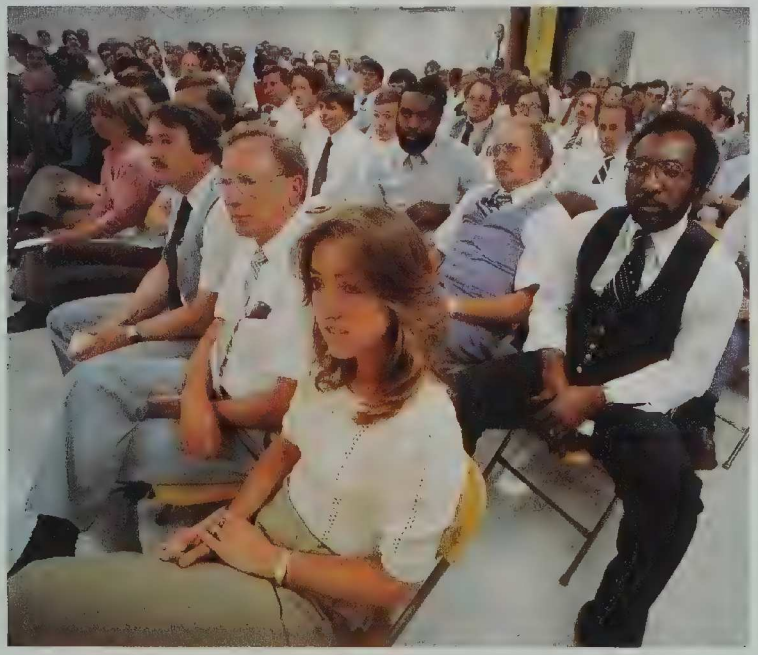
My wife was working in Smyrna before I got this job. She commuted from our home in Nashville. We still live there, but now we commute to work together.

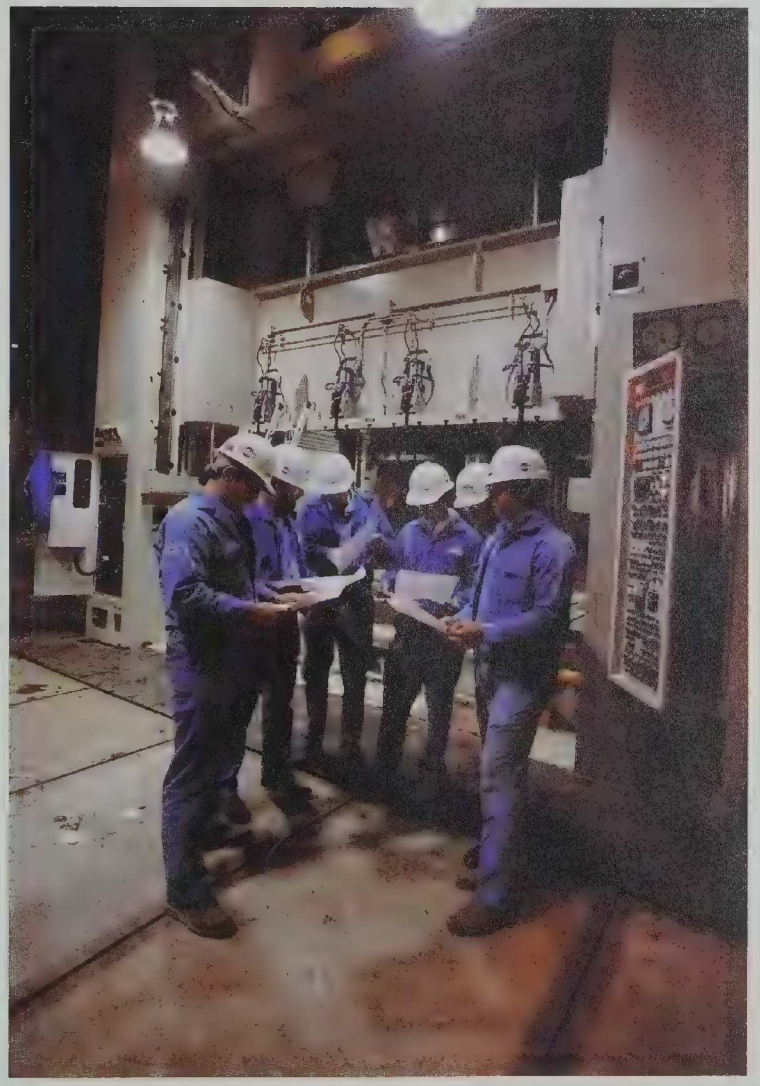
Specialized training on the plant floor would be continuous right up to the beginning of commercial production, after which it would go on uninterrupted as on-the-job training. The new company's commitment to build trucks as good as or better than the ones made in Japan—and to maintain that level of quality right from the start—made training an indispensible and perpetual element in its preparation for launch.

Recruitment and training of administrative and supervisory employees followed a somewhat different path. Unlike the production technicians, most of whom had no prior experience in the particular jobs for which they were hired, the various administrative and supervisory employees had to be thoroughly knowledgable and experienced practitioners of their respective specialties. Furthermore, most of the supervisors, engineers, managers and others in the production divisions and the administrators and office employees in the support divisions had to be hired first and quickest in order to get the new company under way, and there was neither the time nor the necessity to train them as thoroughly as the technicians.

Through the concerted efforts of NMMC's top administrators, its human resources staff, and professional recruiters from outside the company, Nissan would fill over 1,800 positions in its first three years of existence. In engineering, manufacturing, finance and administration, product design, quality assurance, and in human resources itself, scores of specialized jobs were filled with people who had proved themselves to be highly skilled and productive in their previous employment. In roughly equal numbers, the technicians and the support employees gave Nissan a versatile and gifted staff as the new company moved toward production. Working closely together in an atmosphere of mutual respect, they quickly assumed the responsibilities that propelled NMMC from a standing start to Job 1 in record time.

In training programs and on the job, NMMC prepares its technicians and support staff to handle a wide range of complex tasks.





From the air, the test track's banked curve looks like a tied shoestring.

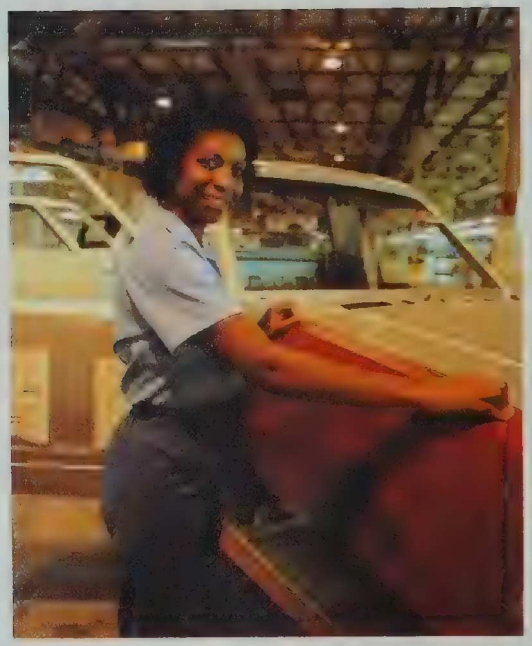
By the fall of 1982, both the staff of Nissan Motor Manufacturing Corporation U. S. A. and the physical plant it would fully occupy in a matter of months had begun to take on the appearance and character of a major American industrial enterprise.

The signs were everywhere. The facility itself stretched for two-thirds of a mile—the equivalent of twelve football fields end to end—along the former J. S. Young Road, since renamed Nissan Drive by Smyrna city officials. The road, upgraded to a multi-laned boulevard, fed into the cloverleaf interchange that was being constructed over U. S. Highway 41-70 within view of the plant, and then continued southward to join the Nashville-to-Chattanooga interstate highway. The new railroad spur line had been tunneled beneath Highway 41-70 directly into the plant, and a rail yard was being laid nearby for the marshaling of freight cars. In the graveled temporary parking lots around the main buildings, the vehicles of construction workers and NMMC employees filled every available space.

The new company training center was in operation near the plant, and work was in progress on the administration building, the boiler house, and several other projects: a test track for the new Nissan trucks, a service parts warehouse, and a storage area in which Nissan Motor Corporation in U. S. A., the California-based distributor of all Datsuns sold in this country, could maintain its inventory of Smyrna-made pickup trucks. (The parent Nissan Motor Company, Ltd., meanwhile, had announced its intention to phase out the name Datsun, using Nissan instead as the principal name for all its products.)

With the approval of U. S. customs officials, NMMC was establishing an international free trade zone on its grounds, permitting the company to defer duty payments on parts shipments from overseas until the parts left the

Nissan's Smyrna facility and the state of Tennessee's adjacent highway cloverleaf and connector road were scheduled for completion at about the same time.



Carolyn Peebles: *My hometown is Murfreesboro and my* husband's from Smyrna—we've lived around here all our lives. I worked at General Electric for ten years, starting as a receptionist and ending as a production supervisor, and during that time I also earned a degree in administrative management at Middle Tennessee State University.

When Nissan came along, it just appealed to me. It was a big new company with new ideas, and it was right in my own back yard. I thought it would be great if I could get in on the ground floor. So without any contacts or any strings to pull, I just filled out an application and gave them my resume and followed up with a phone call. That was in November 1981. A month later I was called for an interview, and then I went into pre-employment training, and the following April they hired me as a supervisor in the trim and chassis plant.

I went to Japan for training twice last year, staying a total of twelve weeks. They aren't accustomed to having women supervisors on the plant floor over there, so it was an unusual experience—for them and me too. My bosses here let me decide whether or not to go, and of course I said yes. I'm glad they didn't decide for me. All in all, it was a tremendous opportunity for me, professionally and culturally. Japan reminded me a lot of Tennessee—the hills, the weather, the hospitality of the people. By the end, it was a traumatic experience to leave.

Now I'm one of seven supervisors on the trim line, and we're working together to select and train the technicians we need to reach full production on the first shift. It's a very cooperative process, a team effort, and I love it. This is the way of the future for U.S. industry. I hope to stay in this company the rest of my working life.

Pat Red: *If Nissan had called and asked me where to put this plant,* I'd have told them to put it right here. As far as I'm concerned, they couldn't have picked a better place. I've been living in Smyrna for the past five years, so I've seen this company go up, and it's been an impressive thing to watch. At Firestone in Lavergne, where I worked as an accountant, the effects of the recession were being felt, but Nissan just seemed to keep on growing.

In January 1981, I decided to send them my resume through the state employment office. Two months later, they called me for an interview. I didn't get excited about it at first—I figured nothing would come of it. Bob Greene in finance and administration and Dan Gaudette in trim and chassis were among the people who interviewed me. They made it sound like an interesting and challenging job. When it was offered to me later, I gave it a lot of thought and decided to take it.

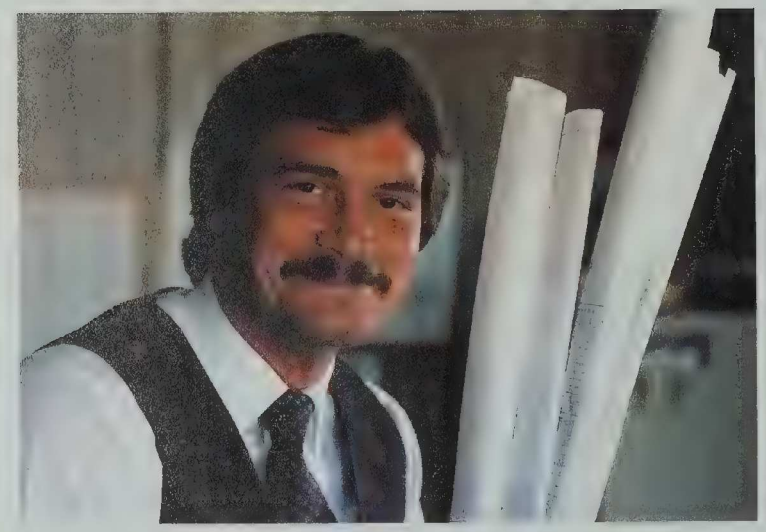
I started here on May 4, 1981, as a financial analyst. We do cost studies and make financial recommendations regarding major purchases the company is considering. I'm learning a lot about the technical side of the company, not just working with numbers, and the broader involvement adds a lot to the job.

It takes time to build a new company like this, and it's hard work for everyone, hard to get this many people coordinated to accomplish a lot in a short time frame. It's hectic now, but I think in time this is going to be an excellent place to work—as good as the best.

plant incorporated in the makeup of new trucks. In Washington, meanwhile, congressional hearings were conducted on proposed legislation aimed at limiting the amount of foreign-made parts used in all motor vehicles manufactured or assembled in this country, and Marvin Runyon, speaking for NMMC, asserted that such restrictions would greatly hamper his company and result in a net loss of thousands of jobs in the U. S. economy.

All of these developments focused additional attention on the Smyrna operation, which was already in the spotlight. Many newspapers, magazines, and television networks in the United States and abroad had sent correspondents to Tennessee to report on this major new company in the world automotive industry. Even the advertising and publicity surrounding the shift in vehicle names from Datsun to Nissan seemed to add to the company's visibility.

In Smyrna and other nearby cities and towns, the presence of Nissan was also becoming an increasingly important factor in the region's recovery from economic recession, and it was having a social impact as well. Economically, the stimulus was provided by the company's tax payments to state and local governments and by its payroll and local purchases. The payroll alone was



Jack Stavana: *The one dominating factor in my life, from the time* I was a kid growing up in Cleveland, was wheels; I always wanted to be an automotive engineer. At the age of twelve I wrote to the head stylist at Ford, saying I aspired to his job. I went to college at Kent State and Western Michigan and then straight to Ford, where I worked for almost ten years in testing, development, product design, and product planning. I also went to night school at the University of Michigan and got my master's in business administration.

But Ford was not expanding then, and the long-term potential wasn't attractive, so I started looking around—and there was Nissan, advertising in the trade papers for engineers. I sent in my resume early in 1981, and in August of that year I was hired as manager of administration in the product design division.

Most people don't realize that even though the basic truck model we're building is about five years old, we're constantly redesigning the parts and materials that go into it. Some of the changes come from Nissan in Japan, and it's our job to make sure that they're understood and incorporated into the manufacturing process here. We also make some modifications on this end to make the truck more attractive and competitive in the U.S. market. All of these changes are spelled out in what we call design notes—and this year alone, we've handled about 1,500 of them.

Everybody in this company has been looking forward to Job 1. There's a lot of pride here, a determination to prove that we can deliver as much quality as anyone in the business. If you're in the automotive business, it would be hard to imagine a more exciting place to be working now than right here.

projected to climb soon to about $90 million a year. Socially, Nissan took seriously its responsibility as a leading corporate citizen. Even though the company did not expect to generate a profit from its Smyrna operations until 1987, it made gifts totaling more than $300,000 to a variety of non-profit organizations in Middle Tennessee before it even started making trucks. A company-wide committee of NMMC employees dispensed the funds.

As the new Tennessee corporation emerged and took shape, its image gradually became familiar to its own employees, its neighbors, its competitors, and other interested observers in Tennessee and around the world. A subtle braiding of cultures and philosophies was taking place, a weaving of selected old ideas and innovations into a fresh approach to corporate management. Marvin Runyon and the rapidly expanding staff of carefully selected NMMC employees were drawing upon their own experiences and the highly successful practices of Japanese industries in the latter half of the twentieth century to create a new organization that was tailor-made for its own particular time and place and circumstances.

"We're taking the best features of the Japanese and American automobile industries and combining them into a completely new company," Runyon said. "It's not a dogmatic, authoritarian hierarchy—it's a real partnership between management and employees, and it's based on cooperation and trust. We're building a high level of satisfaction and expectation among our employees, and we intend to maintain it. There's a total commitment from the top to this philosophy. We won't turn back to the old ways."

Through its department of organizational development, NMMC summarized its management style in a succinct statement of philosophy, and on a more pragmatic level, the company formulated policies aimed at reinforcing the non-adversarial spirit of cooperation. Its administrative structure was much more horizontal than that of

other auto companies, having less than half as many levels of management and a policy of easy accessibility and open communication from top to bottom. Through problem-solving work groups and employee involvement groups, all who worked for NMMC were given a voice in company operations and in the shaping of their own jobs. In other ways as well, the company strived to eliminate the traditional barriers between management and labor; there would be no time clocks to punch, no executive dining rooms in the plant, no reserved parking places. The same fringe benefits would be given to all, as part of an overall package of pay and benefits fully competitive with the best in the industry. Employees in all areas would enjoy a greater measure of job security than was customary in the industry, and they would have ample opportunities to cross-train in a wide range of company jobs.

The high degree of automation and new technology in the plant, far from raising a threat of unemployment, was intended to offer the promise of more and better jobs. "In this company," said Marvin Runyon, "computers and robots won't replace people. What they'll do is free people from boring, repetitive, or hazardous jobs, such as some of the spray painting and heavy welding tasks, and create new roles that have more skill requirements, more interest, more satisfaction, and better pay."

Convinced that the highest levels of productivity and quality were attainable only with the fullest participation and cooperation of all its employees, Nissan set out to create an atmosphere of mutual trust as the basis for its total operation. The company's success as a producer of trucks thus was tied from the first to its performance as a motivator and developer of people.

In May 1982, Runyon named Wayne L. Wright to be vice president for human resources in place of John Bryan, who resigned. In more than a decade as an industrial relations specialist, Wright had helped to launch a number of new manufacturing operations in overseas nations, in-

Nissan Motor Manufacturing Corporation U. S. A.,

Statement of Philosophy

NISSAN

Corporate Objective. To produce the highest quality truck sold in North America.

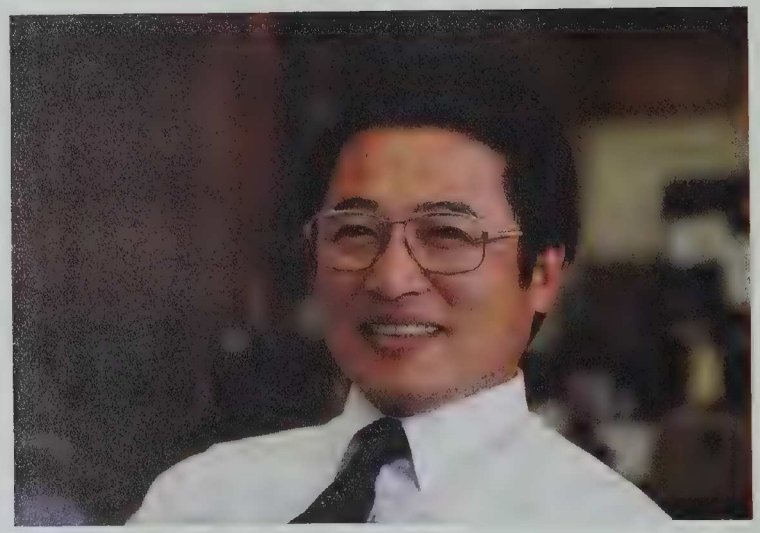
People. People are our most valued resource. Therefore, we strive to create an environment where each individual can be a valuable contributor to our corporate objective while achieving professional growth and long-term job satisfaction and security. We will maintain a strong emphasis on training to make the most effective use of technology and to remain up-to-date in every profession and skill. We seek to delegate to the lowest appropriate level as people develop insight and capability.

We strive for consistency and integrity in all actions. Information and cooperation must flow freely upward, downward and across our company. We are mindful that knowledge is most powerful when shared and that listening is as important as speaking. Meetings are two-way teaching sessions for reaching solutions in an open, candid and constructive manner.

We are self-critical in a positive way, renewing ourselves and our company through consistent, systematic evaluation of our objectives and achievements—always moving toward something better. Our organizational structure and controls should be flexible and always serve the company's objective.

Business Relationships. High quality and consistency in products, policies, and service is our hallmark in all relationships with customers, suppliers, and other members of the business company. We seek to minimize the negative impact of outside interference on all internal operations. All aspects of our business should reflect the highest standards of dedication and ethics.

Citizenship. By providing equal employment and development opportunities for people regardless of age, sex, race, religion, or national origin; by providing pay and benefit levels comparable to the industry and the community in which we operate; by contribution to community projects; by building plants and offices that are attractive and in harmony with the community and by contributing to a pleasant, safe and healthy environment, we shall make an economic and social contribution to the community and society at large.

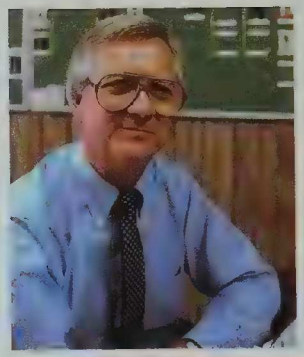


Nick Hasegawa: *I joined Nissan in 1967 after graduating from* Hiroshima University with a degree in mechanical engineering. From the first, I have specialized in vehicle inspection, testing, and quality assurance. I worked on emission control equipment when it was first developed, and in 1973-74 I spent nine months in Los Angeles learning about new U.S. requirements in that area.

When I became a senior engineer in quality control, my responsibilities took me out of Japan again, to Australia and Africa, and in November 1980 I was assigned to C-30, the U.S. project office. I came to Smyrna as a quality assurance specialist in March 1981, and three months later I moved my family here. Now I am a permanent employee of NMMC, serving as manager of administration in the division of quality assurance.

My first trip to Tennessee was a memorable one. I had missed my flight from Los Angeles, and when I finally arrived it was after seven o'clock in the evening, dark outside, and I was uncertain of where I should go and how I should get there. Fortunately for me, another man on the same flight was also going to Nissan, and he knew his way around. We went to a hotel in Nashville and then to the temporary offices at the air base the next morning.

Now my wife and I have a home in Nashville, and our children go to school there. Some things about Tennessee are very similar to Japan, and some are quite different. It is a very interesting and stimulating experience for us to live and work here.



Wayne Wright (left and below, right), vice president for human resources, with the three directors on his staff: Jim Carpenter (left), Larry Seltz, and Hugh Harris

cluding Japan, and from those experiences he had developed a strong commitment to participative management. Department directors under Wright were Hugh G. Harris, director of personnel relations; James A. Carpenter, director of personnel administration; and Lawrence P. Seltz, the former manager of training, who became director of compensation and personnel services. Working closely with the human resources administrators was Yoshikazu Hanawa, a corporate official on special assignment from Nissan in Japan. In addition to his expertise in personnel matters, Hanawa was also a specialist in finance and administration and a close adviser to Marvin Runyon.

The addition of two more directors to NMMC early in 1983—Robert E. Drake in quality assurance and James L. Williams in product design—marked the completion of the company's administrative team. Under Marvin Runyon there were then six vice presidents and sixteen per-

Directors Robert Drake in quality assurance (left) and James Williams in product design at the test track with their vice presidents, Sydney Yoshida (right) and Mike Kiyota

Finance and administration vice president James Stewart (left) with directors George Flintosh and Bob Wright

sons in director-level positions, and that group, with the addition of Hanawa, made up the management staff that would launch Nissan Motor Manufacturing Corporation U. S. A. into the competitive world automotive market.

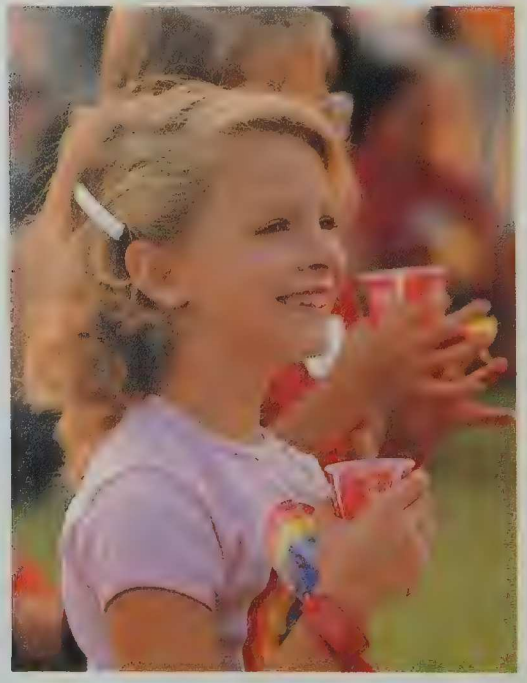
They presided over a company that in some ways resembled a small town—or a large family. Having ended its very first Tennessee day—October 30, 1980—with a social gathering to celebrate its choice of a home, NMMC continued the practice with periodic events designed to keep personal relationships strong in the rapidly growing organization. Perhaps the highlight of these frequent social occasions was the annual October carnival. A Tennessee birthday party of sorts for Nissan and all its employees, the carnival quickly became a popular tradition, bringing together not only the staff but their families as well.

It was on such occasions that the international character of the Nissan family was so impressively displayed.

Noontime in one of the company's cafeterias

There was a rich diversity of ethnic, racial, and national origins, with no less than twenty countries represented, among them Brazil, the Philippines, New Zealand, Poland, Palestine, Estonia, and Laos. Unity in diversity could have served as a company theme. "Eighty-five percent of us are Tennesseans," a Nissan employee observed, "and the rest of us are from all over this country and the world."

There were other unifying factors as well. Morning exercise sessions, a standard practice in Japanese industries, were introduced at NMMC on a voluntary basis, and from that start the company went on to plan and design a wide range of health-related programs and recreational activities, including a variety of sports leagues and the facilities necessary to sustain them. Also, wearing apparel for optional use by both plant and office personnel was

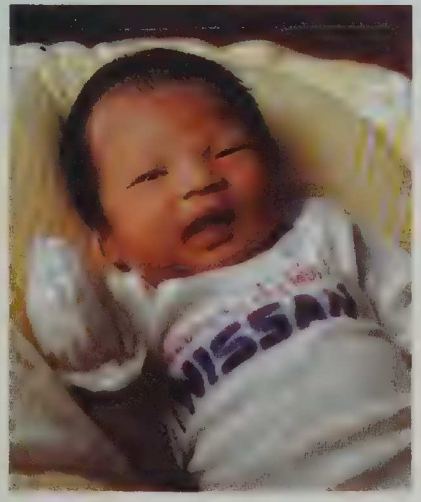


NMMC's October carnival (this page and opposite) is a family celebration of the company's Tennessee anniversary.


USA

As an enlisted man in the 1950s, George Flintosh waited tables at the Smyrna Air Base officers club. Thirty years later, the tables were turned (below) when he became NMMC's director of information systems. Company social occasions are planned regularly to keep the Nissan family in touch.

Four years after he arrived in the U. S. as a refugee from Laos, Somphong Noinola was hired as a technician at NMMC. Two days after he began the job, his wife gave birth to their first child, a son. The Noinolas named him Nissan, and Somphong's new associates in the trim and chassis plant quickly returned the compliment with a specially-made T-shirt for the baby.



Eual Owen: *As a tactical squad commander for the Tennessee* Highway Patrol, I was assigned here for the Nissan groundbreaking in February 1981. I got to know some of the people then, and liked them, and the following fall I was asked if I'd like to work here. I hadn't thought of leaving—I liked the job I had, and I could have stayed there until I retired—but I was impressed by what I saw here, and when I was offered the opportunity to become chief of security, I finally decided it would be a good move.

It really wasn't a move—just a change of jobs. I've lived in Murfreesboro since 1963—all the years I was with the highway patrol—and I'm a native of Auburntown, in Cannon County. What's different, though, is the job. I work through human resources, supervising a security and fire prevention staff that's provided under a contract with a private company. I also work with the local and state police and with the federal customs officials who come here because of the foreign trade zone we have. It's very challenging work—all I expected it to be, and more. I'm very happy with it. I haven't missed my old job—haven't had time.

Exercises to start the work day are a common practice throughout the plant.

provided free of charge, and all employees were given an opportunity to lease or purchase Nissan vehicles at reduced prices.

Through internal publications and other forms of communication, NMMC worked at keeping its people in touch with one another. They celebrated the birth of the first "company baby," a son born to human resources staff member Pam Harris on January 11, 1982, and the first "company marriage," between Barbara Parker in engineering and Michael Noonan in manufacturing, on April 10, 1982. And they grieved over the first deaths in the family: Ronald S. Shipley, a maintenance technician, who succumbed to a heart attack in September 1982; Frances Patton Runyon, wife of the president, who passed away on November 19; and Billy Don Tabor, an analyst in material supply, who died of cancer on the last day of that year.

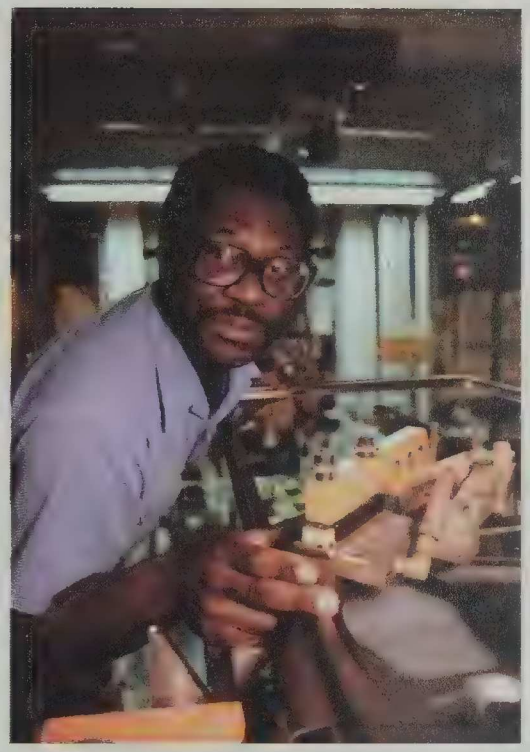
During all of 1981 and 1982, NMMC was in a state of perpetual motion and rapid change. Then, as 1983 began, it seemed on the point of arriving, of completing one phase and preparing to begin another. The 1,000th employee joined the company on January 17, 1983. Nissan had its plants, equipment, staff, and raw materials almost in place; the time to make trucks was near at hand.

Sandi Rodrigues: *The company my husband and I worked* for in San Jose, California, moved us to this area in the summer of 1980, but a year and a half later I was laid off. Through their placement office I got an interview with a Nissan recruiter, and very soon I was hired as a personnel assistant in the benefits section of human resources.

I hadn't really planned to go right back to work when I was laid off, but this opportunity came along, and I was so impressed when I interviewed that I suddenly wanted the job very much. When it was offered to me, I passed up a planned trip to Mexico and started right to work, just to make sure I didn't miss my chance.

The benefits people receive here are really outstanding, and the same basic package is provided to all employees, regardless of their position. It's a very equitable and generous package, and that makes my job all the more enjoyable.

Living around here is nice too. Having spent all my life in California, I hardly knew where Tennessee was until we moved here. Now, I'd be reluctant to move back.



Hugh Bell: *My father was in construction work. We moved to* Michigan from Washington, D.C., where I was born. I went to high school in Inkster and to college at Eastern Michigan University in Ypsilanti. As soon as I finished my degree in chemistry there in 1976, I got a job as a bench chemist at a research and development company. Then I moved over to the Ford Motor Company into an in-plant training program for process engineers. I liked the job, but it didn't last long; after three years, I got laid off.

While I was out of work, my former boss at Ford, Ken Cruickshank, took a job here at Nissan and offered me an opportunity to come down here with him. Neither my wife or I had ever lived in the South before, but we concluded that our chances would be better here, so we came. I'm a manufacturing engineer in body, frame, and stamping, working on process operations, new tool development, robotics, and dimensional integrity of component parts on the metal line. It's a very interesting and challenging job in an unusual company.

Living in Middle Tennessee is a lot different than living in the Detroit area, too. We're not used to all the open space—but we love it.

Matthews with colleagues on break in Japan (right) and with NMMC's first stamped part (below)

Miles Matthews: *In my life, I've done a little bit of everything.*

I was born in St. Louis, and when I was thirteen I moved to West Tennessee to live with my grandmother. That's where I learned to hunt and fish. I went to Tennessee State University, then to Vietnam, then to Aladdin Industries as a production supervisor.

I stayed at Aladdin for nine years, and I felt secure in my job, but I knew people who were working here at Nissan, and they urged me to send in a resume. I had heard about their management style and the high level of responsibility they gave to people, and that appealed to me. I decided to go for it.

After a lot of interviews I was hired as a supervisor in body, frame, and stamping—started to work in April 1982 and went to Japan the next month with two other supervisors and our manager. We came back home and then went again—seven weeks the first time, eight the second. It was a very valuable experience for me, especially since I had no automotive background. I didn't know the operations, but I know people, and I liked them, liked their methods. After an absence of fifteen years I was back in the Far East, and I quickly felt good about being there—a lot better than I had felt about being in Vietnam. In fact, leaving Japan was a very emotional experience.

I supervise technicians on the transfer line now. We operate highly automated presses, stamping out doors and fuel tank parts. I made the first part ever stamped in this plant, on November 30, 1982.

This is a hell of a place to work. You can count on a new challenge every day. I'm listened to, my opinion is respected—and if I want to talk to Marvin Runyon, all I have to do is call and make an appointment.

A network of computer-controlled devices known as power and free conveyors had been installed on tracks that weaved and twisted for ten miles through NMMC's three manufacturing plants. The overhead conveyors were programmed to accumulate and surge, moving independently of one another to close gaps in the system and to supply component parts as they were needed in the assembly process.

On October 15, 1982, the power and free conveyors in the trim and chassis plant were started up for the first time. Some of the engineers who were present remembered the occasion.

"The sound is unmistakable," said Russ Mabrey. "There's a clicking noise, like a roller coaster, and then a sound that reminds me of heavy rain on the roof. It sounded good that day—like hearing an old friend's voice after a long absence." To Rolando Queyquep, the conveyors were "still and quiet—and then, all of a sudden, they were rattling like a bunch of trollies." Al Dryden's recollection of the day was less vivid; he had "been around these things long enough to ignore the sound unless something is wrong"—and that day, nothing was wrong.

The testing of equipment had begun. In December, a three-month production trial would start in the body, frame, and stamping plant, culminating in the production of a small number of test trucks. As soon as that process ended in the trim and chassis plant in mid-February, a second trial run would begin. Equipment would be checked and double-checked, material supply routes would be tested, production technicians would get direct exposure to the jobs for which they had been trained. Each one of the approximately 2,500 parts needed to construct a Nissan pickup truck would be checked for availability, durability, fit, function.

After the production trials, the manufacture of commercial trucks—the long-awaited Job 1—would be started.

A coming-out party in trim and chassis for Nissan's first trial-run truck, February 1983

In February, the company announced that these first trucks for consumers would roll off the assembly line two months ahead of schedule. An exact date—June 16, 1983—was targeted.

"We're ahead of schedule," said Jerry Benefield, vice president for manufacturing, "because all of our people have done such a good job of building the plants, equipping them, supplying them with parts, and training the technicians. We're ready to make trucks equal to or better than the ones made by Nissan in Japan."

In its first few months of production, NMMC would be making trucks at a gradually accelerating pace calculated to reach 10,000 units a month by mid-1984. That number, or 120,000 a year, would represent full production capacity for one shift. Beyond that, additional shifts or expansion of the facility could be accomplished as demand for vehicles dictated.

By the June 16 launch date—863 days after the groundbreaking—Nissan would have spent $660 million

Dennis Little with Mike Kotake and Tom J. Satoh in Japan (left) and with Hidemasa Koga in the NMMC paint plant (below)

Dennis Little *came to Nissan with unusual qualifications. A native of upstate New York, he spent four years with the army in Japan, where he gained a working knowledge of the language, a Japanese wife, and a degree from Sophia University in Tokyo. Back in this country, he picked up a master's in public administration at Western Kentucky University and then went into industry. In November 1980, he heard about Nissan's plans in Smyrna:*

They didn't even have an office in Tennessee then, and I had to get a friend in Japan to find out where I could apply. They hired me as a recruiter in August 1981, but three months later I switched to training. That was the start of a whole new career for me. In Japan I served as a team leader and guide for NMMC trainees, and I also worked under Hidemasa Koga, a master *sensei* (mentor), to learn about dry sanding and body repair techniques in the paint plant. Mr. Koga is on the launch assistance team here with us now, helping me and the other supervisors in the paint plant to prepare our technicians for full production.

This is not a regular type of industrial corporation. There's much more latitude for individual contributions, more room to grow. Strong personal relationships are developing, and everybody takes a genuine pride in the quality of the product. It makes you want to see this thing fly—not only for the company's sake, but for the people involved. We're bringing three cultures together here—Tennessee, Japan, and the American automotive industry. It's very satisfying to see people learn to appreciate the best qualities of all three.

Hank Marshall: *Middle Tennessee is where I'm from originally.*

I finished high school in Nashville, went to Middle Tennessee State University, got a master's in geography at Memphis State, and taught at MTSU for three years. Then I went to work for a map company, traveling out of Lexington, Kentucky, and after ten years I came back to this area in another sales job.

One of our neighbors in Brentwood was Jim Southall, an engineer here. I had heard about Nissan, but didn't know anything about the company. Jim and I played softball together, and he told me they needed a jack of all trades in engineering—somebody to plan, schedule, arrange, and organize a lot of tasks that nobody had time to attend to. They had created a position called facilities coordinator, and I applied for it—and by golly, they hired me.

I was part of the temporary staff at first. One of my jobs was helping Don Kemp give tours of the facility. I barely knew more than the people I was showing around, but I love to talk to people, so I just learned as fast as I could and tried to make myself useful.

In the summer of 1982, a permanent job opened up in engineering, and it was offered to me. I felt good that they had that much confidence in me, but I couldn't make up my mind about it. I hesitated too long, and the chance was gone. It was for the best, though; my route is people, not machines. Since then, I've had nothing but good luck. I was given responsibility for the physical arrangements at the October carnival, and when Don Kemp was promoted, I got his job as visitor coordinator. It doesn't matter where I am in the company or whether I'm permanent, temporary, or indefinite—just so I'm not terminal. They gave me a chance to show what I could do, and I grabbed it. I love working here.

Hattie Lane: *From the minute I first heard about Nissan back*

in the fall of 1980, I was attracted by the thought of coming to work here. The emphasis on people really excited me. I thought I'd fit in, because that's my style too—I believe in people and the great things they can accomplish if they're given a change to excel.

I had been working at Vanderbilt University for fifteen years, and I liked it there very much, but I decided to apply here anyway—and six months later, in the summer of 1981, I was invited for an interview. Nothing came of it, and I had just about concluded that my chances of getting hired were very slim. But a few months later I was asked to come back for another interview, and soon after that I was offered the position of supervisor of office services in finance and administration. It was a hard decision to leave Vanderbilt, but I decided to do it, and on October 7, 1981, I started this new adventure.

From Day 1 it's been wonderful. They've given me room to grow and gain new skills, and I thrive on that. We're responsible for postal services—about 25,000 pieces of mail a week—for office supplies and furniture, for administering the telephones and copy machines. I've been promoted to assistant manager, and I can't imagine a more satisfying job—or a more rewarding place to work.

to build, equip, staff, and operate its new American subsidiary. The three manufacturing plants and the administration building would contain 3,253,368 square feet of floor space, and another 165,130 square feet of space would exist in detached buildings on the site. The total area under roof would be 78.5 acres. By any measure, NMMC would be a world leader in automation, robotics, computerization, and other forms of advanced technology. More than 8,000 people—a number approximating the entire population of Smyrna—would have worked at one time or another to bring the new company and its facility into being. Roughly 1,350 employees would be working for the company in June, and that number would rise to about 2,000 within a year.

The numbers were impressive. They told the Nissan story in shorthand, conveying in an abbreviated way the magnitude of the undertaking. They told how long, how fast, how much, how many.

But the people were an even more impressive story. From the first, Marvin Runyon and his companions had insisted that the focus of their company was not simply on making trucks, but on *people* making trucks. It was people, after all, who had finished ahead of schedule and on budget, with a minimum of defects and an excellent safety record. The people of Nissan Motor Manufacturing Corporation U. S. A. had met every challenge, passed every test.

Now, at last, the ultimate test was about to be presented. On February 16, 1983, the first of twenty-seven production trial vehicles completed its passage through the final line in the trim and chassis plant. Job 1 was exactly four months away. The final countdown had begun.

Andy Harris: *We're developing a fitness and recreation* program for the company that will include everything from ping pong tables and basketball goals in the plant to league sports and new facilities for recreation. Margo Brown and I are working with a company-wide task force to plan the long-range program. We have a swimming pool already—it was on property the company bought over near the new Nissan water tower. In the future we'll develop ball diamonds, tennis courts, and other outdoor facilities, as well as a fitness facility with a gymnasium, indoor track, weight room, and space for things like aerobics and karate classes. Another area of interest to us is stress management, and we're also doing some early screening to identify and prevent future health problems. The emphasis is on wellness, on nutrition and personal fitness. All of these programs are voluntary, of course, but people are showing a lot of interest, and we expect this whole range of activities to grow when the company gets settled in one place.

I joined the staff in human resources here in October 1981, after working in personnel and employee relations for the state of Tennessee for about six years. Nashville's my home—I grew up there, went to high school and college there. I'm enjoying my job with Nissan very much. It's a great thing for Middle Tennessee to have a company like this move into the area.

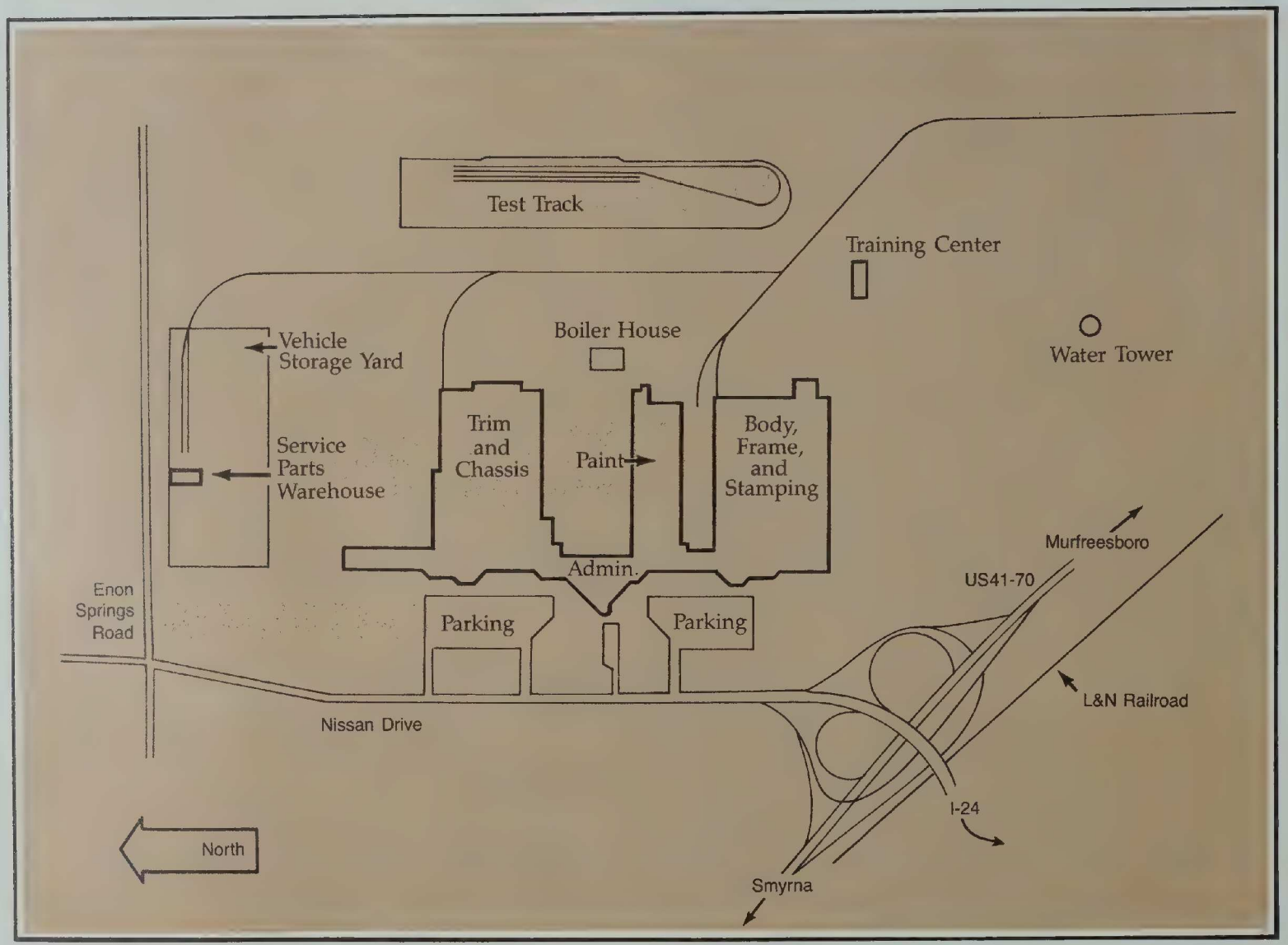

Faces in the Crowd:
Nissan People on the Job


NISSAN
DATSUN

Opposite: Marvin Runyon and NMMC product
Above: 1959 Datsun pickup (top) and 1983½ Nissan pickup

Nissan Motor Company, Ltd., of Japan exported its Datsun vehicles to the United States for the first time in 1958, in the twenty-fifth year of its history as an independent producer of cars and trucks. A quarter of a century later, in 1983, the Tokyo-based corporation's first U. S. manufacturing subsidiary began making Nissan light duty pickup trucks in Smyrna, Tennessee. In the intervening twenty-five years, Nissan sold about five million cars and one and a quarter million trucks in America. Henceforth, most of the company's trucks entering this market would be homemade in Smyrna, products of Nissan Motor Manufacturing Corporation U. S. A.

The beginning of U. S. automotive production by Nissan in its fiftieth year was a noteworthy event in American industry. Since the worldwide oil shortage of the early 1970s, Japanese-made compact pickup trucks had won a major share of the market. High-quality, low-maintenance, fuel-efficient, competitively priced Datsuns alone accounted for about one-fourth of all new compact pickups sold in the United States as the 1980s began. With its truck sales having exceeded 60,000 units a year since 1971 and 100,000 a year since 1979, Nissan's well-timed



Nissan's Smyrna operations encompass more than 78 acres under roof, and there is ample space for expansion.

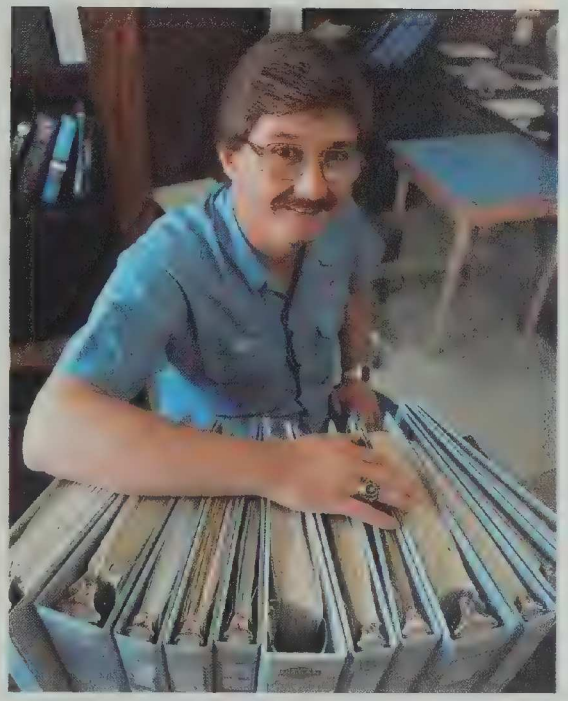
opening of a domestic production facility indicated a continuing leadership role for the company in the U. S. marketplace.

In a time of general retrenchment in the automotive industry, Nissan had boldly invested more than a half-billion dollars in an enterprise that invited descriptive superlatives: newest, biggest, most automated, most technologically advanced. In philosophical as well as physical terms, NMMC stood in marked contrast to its competitors, offering participative management in place of an autocratic corporate hierarchy and cooperative decision-making in place of an adversarial labor-management relationship.

NMMC was determined not only to be new and different but also better. Its aim was to produce trucks as good as, if not better than, those manufactured in Nissan's Kyushu plant, and, as its statement of corporate philosophy declared, "to produce the highest quality truck sold in North America."

The vehicle it would present in fulfillment of that pledge, beginning on June 16, would be the 1983½ Nissan light duty pickup truck, Model 819, an evolved version of the basic Model 720 first produced at Kyushu in 1979. It would come in a wide variety of sizes, shapes, and colors: standard and king cabs, regular and long cargo beds, 4-cylinder gas and diesel engines, 2-wheel and 4-wheel drive, 5-speed manual and 3-speed automatic transmissions, 11 basic colors in multiple combinations. There would be standard, deluxe, sport, and heavy-duty models with such features as tilt-column power steering, reclining bench and bucket seats, sliding rear windows, sunroofs, power-assisted front disc and rear drum brakes, and steel-belted radial tires. Fuel efficiency would range upward to a maximum of 43 miles per gallon. Prices would start at $5,995.

Within four months of the June launch, NMMC would begin making 1984 Model 838 trucks, a designation that would acknowledge both the new model year and the



Don Bingham *grew up on a farm near Smyrna, and his family's roots are several generations deep in the soil of Rutherford County. His first job after college in 1975 was as a Datsun salesman in Murfreesboro. Then he moved into industrial engineering with an area manufacturer, and early in 1981 he sent his resume to Nissan. By mid-April, he was a plant layout engineer at the Smyrna site, helping to draw the scale model of Nissan's sprawling new facility:*

It all happened so fast. I knew from selling Datsuns how well-made they were, and suddenly I was going to Japan to see how they did it. After a year or so in plant layout I was transferred to industrial engineering, and I'm still there, working for Andy Kivilaan. One of our major activities right now is a task force on the new Nissan truck model of the future. We're looking at the preliminary plans and determining the probable consequences for manpower and plant capacity.

I see us adopting some of the planning and goal-oriented styles of the Japanese and blending them with the best qualities of American industries. We have a great opportunity and a great advantage with this new plant and its headquarters all concentrated here in one place. You can get answers easier and quicker in a face-to-face situation like this. People, the human mind—that's the greatest resource. If we do this right, we'll tap that resource more effectively than anyone ever has before. What we do here in the next five to ten years will have a great impact on the future direction of industry in America and the world. It's not every day you have a chance to be a part of history like that.

continuous modification of the basic 1979 vehicle. Through its divisions of product design and quality assurance, NMMC was constantly converting new information from its own studies and from Nissan in Japan into design notes that changed parts, tooling, and steps in the manufacturing process. In round numbers, there were 2,500 parts to the truck, and it took 2,000 steps, or separate procedures, to assemble them. In reality, the Nissan pickup was perpetually being redesigned.

And the company, like its product, was also in a continuous state of change. Almost daily, there were noticeable additions to the physical plant—newly opened cafeterias, paved parking lots, entry gates and security fences, landscaping, finishing touches to the administration building (to be occupied later in the summer). Organizationally, there were additional shifts: Departments of plant and process engineering, headed respec-

Nissan-Made Pickup Trucks Sold in the United States Since 1959

1959	159	1971	66,972
1960	346	1972	75,959
1961	279	1973	88,785
1962	817	1974	60,827
1963	1,983	1975	72,223
1964	3,524	1976	80,300
1965	5,514	1977	99,839
1966	8,202	1978	94,604
1967	12,221	1979	101,914
1968	17,707	1980	111,246
1969	30,236	1981	119,684
1970	50,954	1982	107,927

In 1983, approximately 20,000 of the Nissan trucks sold in the U. S. will be manufactured in Smyrna. By 1985, NMMC will meet most of the U. S. demand for Nissan pickups.

Bob Kirgan: *For over thirteen years, from 1968 to 1981,* I worked in four different divisions of General Motors in Ohio and Michigan. Quality control was my area of specialization. I was interested in the Japanese system and methods that were turning out better products, and the news that Nissan was coming here got my attention. Then one of my old associates from GM, Bob Birch, joined the company, and that caused me to decide I wanted to work here too. Pretty soon I was offered a job, and I came on board in November 1981.

As assistant manager of vehicle testing in quality assurance, it's my job to conduct certain tests on trucks after they come off the line to make sure they meet all company standards and government regulations. We have a staff of sixteen people working in the laboratory, on the test track, and on the road. Twice a year, we take a four-truck caravan on a cross-country drive to check out their performance. The information we get from all our testing is fed right back to the people in the plants, so they can make adjustments quickly and maintain the highest quality with the fewest problems.

I had a good job with GM, and it was hard for my family and me to leave Michigan. But this company was moving in a direction I wanted to go, and I wanted to move up with them. Tennessee has been an added bonus. We like the area, like the climate. All in all, it was a very good move for us.

NISSAN. ONE HECK-OF-A-HUNK-OF-A TRUCK!

NOW AT YOUR DATSUN DEALER.

A whole new line of trucks wearing a whole new name: Nissan.
Check 'em out. You'll find the most powerful standard engine in its class. You'll find new roominess to seat two, three or four.
You'll find double-wall bed construction and brawny 5-speed overdrives.
You'll find why more truckers drive Nissan-built compact pickups than any other.
And you'll agree: the newest Nissan is one heck-of-a-hunk-of-a truck.

ONE HUNK-OF-AN ENGINE. The most power of any standard engine in its class.

- New 2.4-liter NAPS-Z hemihead engine delivers more horsepower and torque than Toyota, Chevy S-10, Ford Ranger and everyone else.
- 5-speed overdrive manual transmission standard—on all models.

(Mfr's. sug. retail price excluding title, tax, license and destination charges.)

ONE HECK-OF-A CAB. Seat 3 in a conventional cab, 4 in the King Cab.

- More hiproom than Chevy S-10 or Toyota.
- More legroom than Ford Ranger, Chevy S-10 or Toyota.
- More headroom, legroom, seatback rake adjustment than in any Nissan-built standard compact ever.
- The original King Cab: up to 9 cubic feet of extra inner space for safe storage and jump seats.

The Sport Truck that lives up to its name.

- Unique grille and bumper designs: sleek in 2WD, rugged-looking in 4WD.
- Bucket seats with lateral support for extra comfort, control.
- Cloth upholstery on seats and doors; full carpeting.
- AM/FM multiplex stereo and sliding rear window—standard. And more.

ONE HECK-OF-A HUNK OF-A 4 X 4.

- On-demand 4-wheel drive. Shift from 2WD to 4WD High at the flick of a stick without stopping. Missing from Toyota.
- Highest minimum ground clearance. Higher than any other compact pickup.
- Wide clearance independent front suspension for a smooth, level ride.

ONE HECK-OF-A BODY. Double-wall construction

- Double steel walls (except MPG Standard). Not in Toyota.
- Heavy-Duty Long Bed hauls more than Toyota, Chevy S-10, Ford Ranger... and many full-size pickups.

ONE HECK-OF-A SAVER. Only $5,995* for the Nissan MPG Standard. ** **Big value, little money.**

Every Nissan truck gives you solid value for your money, with extra features at no extra cost. Prices start at just $5,995.* That's less than Toyota, Ford or Chevy, but look what you get:

- 5-speed overdrive transmission.
- Power front ventilated-disc brakes.
- Maintenance-free battery.

Nissan is one heck-of-a-hunk-of-a truck.

*Not available in Calif. and high altitude areas.

NISSAN WE ARE DRIVEN DATSUN

NISSAN 4WD KING CAB

The transition from Datsun to Nissan trucks was incorporated in the company's U.S. advertising campaign.

tively by Ron Straub and Ken Cruickshank, were transferred from the division of engineering to the division of manufacturing, and a subsidiary of Daniel Construction Company was retained on contract to handle a variety of maintenance and utility service functions.

Approximately 650 technicians were present as the Job 1 launch date approached, and they were backed up by nearly 700 administrative and supervisory employees; within a year, another 500 or more people would join them to complete the staff required for full production and support services on one shift. Early in May, a month before Job 1, NMMC celebrated the achievement of two million safe work hours without a lost-time accident.

Finally, after almost thirty-two months of building and preparing, NMMC came at last to the commercial truck-making stage. Two production trial runs had been com-

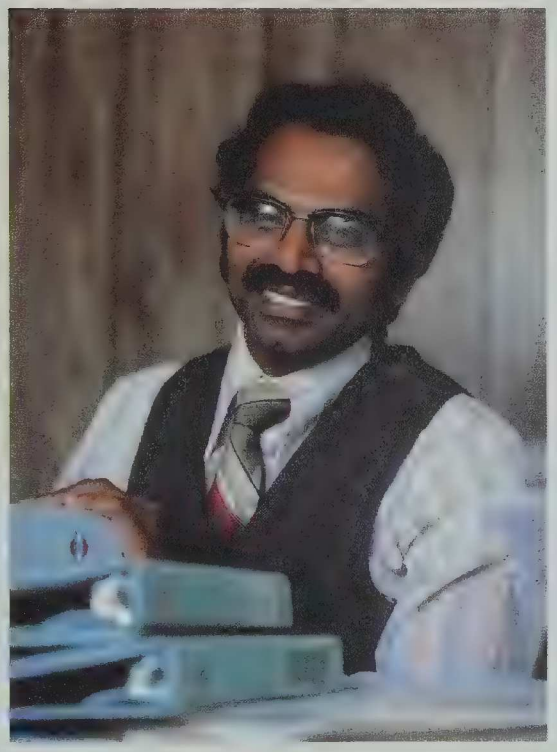
Reassignment of some engineering departments to the manufacturing division took place when commercial production of trucks was about to begin. Process and tooling engineers, headed by Ken Cruickshank, and the plant engineering department, under Ron Straub, were among those to make the change. At right, Straub (second from right) poses with five key members of his staff. From left: Ralph Flener, Pete Walser, Dave Miller, Carol McKinney, Straub, and Carnes Hill.

pleted, producing a total of nearly ninety experimental trucks. Material supply routes had been checked and adjusted, parts quality had been thoroughly tested, supervisors and technicians had graduated from simulated to actual production experience. Two of the experimental trucks had been driven 6,500 miles across the United States, through extremes of terrain and climate, to test them for wear and performance, and Sydney Yoshida, NMMC's vice president for quality assurance, reported that the stringent test was completed with no major problems. "We have a very high quality truck," he announced with pride, "one equal to the Nissan trucks produced in Japan."

As the production trial runs were completed and the commercial manufacturing process was about to begin, manufacturing vice president Jerry Benefield talked about technology and attitude, two vital ingredients in the Nissan undertaking:

"The technology originated in this country, but it was the Japanese who mastered its application—and now, with their help, we have transferred that knowledge and skill to our technicians. Attitude is the other key factor in this enterprise, and it's equally as important. It has to do with pride of craft, mutual trust, cooperation. With the technology and the right attitude, we can build the best trucks in the world.

"What you see here is a new approach to industrial production in this country. The only way to get a better product is to get maximum participation of all employees in the process. To do that, we have to establish direct, cooperative, two-way partnerships among all the people who work here. That means talking things out instead of just issuing orders. We've spent a lot of time on that, and now there's a high level of enthusiasm here, and a high level of expectation. It's our job to maintain it, to deliver on our promises—and that's exactly what we're doing."



Karra Reddy: *Right after I received my masters degree in* mechanical engineering from Oklahoma State University in 1968, I went to work for Chrysler in Detroit as a test and development engineer. After three promotions, I was a product design supervisor in the truck group, but the company was consolidating, and it seemed the right time for me to start looking for a new job.

It was the summer of 1981. I saw a Nissan advertisement for engineers in a trade paper, so I inquired, then applied. I was called for an interview a week later, and the day after that, I was offered a job. It all happened very quickly. I moved here in August 1981, and my wife and two children came later.

I'm the manager of body and frame design in the product design division. We have three primary tasks. The first is to help work out design problems that may arise in the plant start-up process. Second, we're developing the network of domestic parts suppliers, working toward phasing in more domestic components. And third, we're looking ahead to the new vehicles Nissan will produce here in the future. All in all, this is a very stimulating job.

This part of the country is also quite nice. Smyrna is about the same size as the village of Narayangiri, in southern India, where I was born.

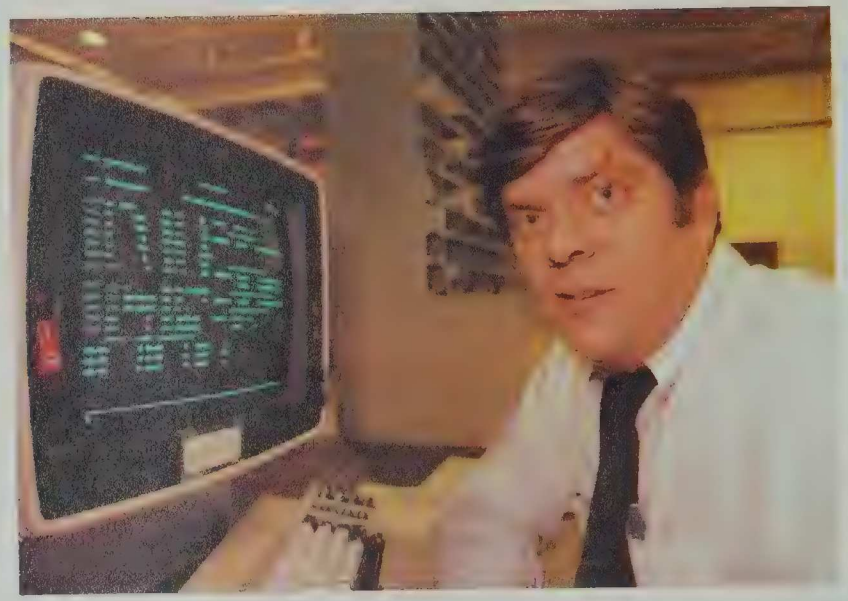
Waiting for a meeting to start, the members of NMMC's corporate management committee pause for informal conversation. From left: Sydney Yoshida, vice president for quality assurance; Gail O'Sullivan Neuman, general counsel; Jerry Benefield, vice president for manufacturing; Yoshikazu Hanawa, general manager, technical assistance; Marvin Runyon; Wayne Wright, vice president for human resources; Al Folger, vice president for engineering; Mike Kiyota, vice president for product design; and Jim Stewart, vice president for finance and administration.

The material supply management team: (from left), Dave Offill, Paul Wendell, Bob Taylor, Ken O'Donnell, adviser Hideo Ishii, and director Bob Frinier

The four men who were directly responsible for production in Benefield's division of manufacturing had come to NMMC from the Ford Motor Company with an average of sixteen years' experience in the automotive industry, even though their average age was only slightly above forty.

Bob Frinier, the director of material supply, was the first of the four to join the company (and NMMC's fifth permanent employee), having assumed his job in the Southfield headquarters near Detroit on November 1, 1980. A native of California, Frinier had spent fifteen years as a parts supply and production control specialist at Ford. At NMMC, he guided the development of a comprehensive material supply operation that included production planning, purchasing, transportation of parts, and inventory control.

More than fifty domestic suppliers were chosen to deliver production parts to the plants by truck or train, some of them under an intricately designed "just-in-time" arrangement that reduced the necessity for large parts inventories at NMMC. Operating on a firm three-month production schedule, the company could tell its suppliers



J. D. Smith: *My dad was a technical engineer, and we moved* around a lot—lived in six states while I was growing up. We ended up in Georgia, where I went to college for a year and then joined the army. I served in Vietnam. Later, I went back to school, and in 1972 I got a job in material handling at the Ford assembly plant in Atlanta. Nine years later, when I was laid off and looking for work, I was fortunate enough to get an interview with Nissan. They made me an offer right away, and I started to work here less than a month later, in January 1982.

Working in material handling had exposed me to some other areas—production planning, inventory control, and so forth—and that exposure qualified me for this job as supervisor of material control. It's our job to keep up with the parts that go into the truck—to conduct continuous audits, project shortages, and generally to know where everything is at any given time. I've got a staff of thirteen people, all of them hand-picked. The real strength of this company is the high-level concern for its employees. There are some outstanding people here, top to bottom. Now is the time and this is the place to establish teamwork and cooperation and trust. If we build it now, we won't lose it when the going gets tough. I'm very confident we'll pass the test.

Vince Sorgi: *My parents came from Italy and settled in* Detroit, where my dad was a mechanic for the city transit system. I went to the University of Western Michigan and studied geology and geography, intending to teach, but jobs in that field were scarce, so I took a position at Chrysler as a line supervisor in stamping. It was a tough job, but I've never really quit at anything, so I hung in there for three years, working the third shift, the graveyard shift.

Eventually I moved into inventory control, and a few years later I found myself on the skeleton crew that presided over the discontinuation of the Chrysler New Yorker model and the closing of that plant. Ken O'Donnell was my boss there, and when he got a job here, I applied to come too. So in May 1981, I moved to Tennessee with my wife and two children. It was a big change for us, our first move, and it was hard, but we all love it now.

The job itself is just great. I'm one of two assistant managers in inventory control, in charge of follow-up with our suppliers—tracing parts all over the world. It's a lot like detective work. I've been to Japan four times. It's a rare experience to be involved in the creation of a whole new company.

Daily and even hourly delivery of production parts to the manufacturing plants is coordinated by the office of material supply.

far in advance the exact quantity of certain parts to be delivered and even the day and hour they should be available.

Among the parts to be supplied by U. S. companies were glass, seats, tires, carpeting, radios, heaters, air conditioning components, shock absorbers, safety belts, windshield wipers, batteries, steel, paint, and steering wheels. Engines, transmissions, axles, and certain other major parts too expensive to produce in small volume were among the materials to be shipped in the beginning from Japan.

Once the necessary parts were ordered and received, the central control computer scheduled and directed the production process, regulated certain equipment in the plants, and operated the network of overhead and floor conveyors that moved truck components throughout the facility.

Otis Hunt: *I grew up in a little town called McLemoresville,* in West Tennessee. After I finished high school I went to Tennessee State University in Nashville for three years, then went into the army. Later on I came back to Nashville, worked for the city a while, and then, for almost ten years, I worked in accounting and inventory control at U. S. Steel. That's where I was in 1981 when Nissan moved into this area. Their management concept sounded real good to me, and I immediately put in my application.

That must have been in about November. In January I got a call to come for an interview, and that led to other interviews and to six weeks of pre-employment classes, and finally, in October 1982, I was hired. Funny thing, though: I knew my chances were slim, with so many people applying, but I just had a gut feeling right from the first that I'd get the job. I guess you could call it positive thinking.

Now I'm a technician in non-production stores, which is part of material supply. I'm planning on staying with this company until I retire. There are opportunities to move up here—you can go as far as your capabilities will take you. There's really something to this management philosophy, too. It's like Southern hospitality at its best—people get along, work well together, care about one another. It's a great atmosphere. I used to hate to go to work. Now I look forward to it.

The transformation of parts and materials into finished vehicles had its beginning in the body, frame, and stamping plant. On the Job 1 launch date, about 275 technicians and seventy administrative and supervisory employees were working there under the leadership of plant manager Rick Sommer; in the months ahead, as the plant reached full production on one shift, the total staff would exceed 500.

Sommer had come to NMMC in May 1981 from Ford, where he had worked for seventeen years. A native of the New York City area, he had earned an engineering degree from Brown University and a masters in management from the Massachusetts Institute of Technology, having gone there on leave from Ford in 1979 as one of fifty fellowship recipients chosen from industries around the world. His MIT experience had included a study trip to Japan, where Sommer witnessed the application of management practices that closely matched his own instinctive style. Later, when he joined Nissan, he had the opportunity to apply those principles of participative management.

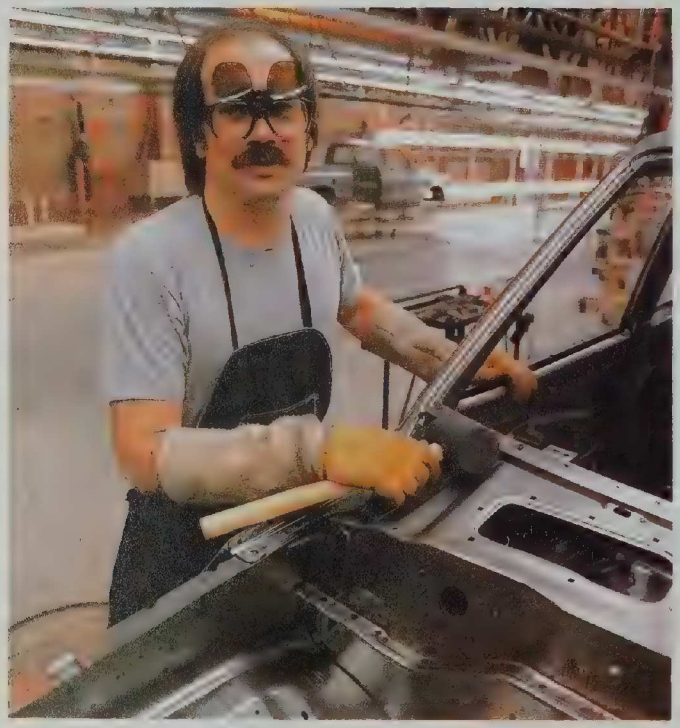
"A large part of my job is to develop my people," he said. "I see that as being of equal importance with making trucks. If the people feel good about themselves and their jobs, they'll do their best—and if they do their best, nobody will make trucks better than ours."

On fifteen presses in the stamping area, NMMC technicians and their supervisors converted twenty-ton rolls of nine-millimeter sheet steel into fuel tanks, doors, hoods, floor panels, roofs, fenders, and wheel houses—twenty-four parts in all—and sent them on conveyors to a storage bank near the body shop assembly lines. Simultaneously, on the frame lines, the disassembled parts of seven basic truck frames were welded together in a technologically advanced sequence of steps that combined the skills of trained people and programmed robots. The frames, once completed and inspected, were sent by

Leaders of the body, frame, and stamping staff: (front row, from left) Tom Posch, Dick DeMara, and John Felice; (back row), Lance Ikard, John Gibson, Gerry Kretschmar, Jackie Turner, Elton Coleman, John Shaw, and plant manager Rick Sommer

Pete Walser: *The last seven years I was with Ford, I was one* of five engineers on a team of automation specialists. We installed about 200 robots in Ford plants all over the country. Things had slowed down a lot in the automobile industry by then—this was in the latter part of 1980—and I was looking around for another job. I had an offer in Illinois that I was about to take, but I decided first to make a few inquiries about Nissan, because I was very interested in the Japanese management philosophy and their use of technology. In about two weeks, I was making plans to relocate my family in Tennessee.

What we've got here is not futuristic robots but a meat-and-potatoes application of the basic tools of automation. We've got 220 robots—more than any other automotive plant in the world. The largest Nissan plant in Japan has 120. General Motors and Ford have 100 or less in their plants. Most of ours are arc welders, spot welders, spray painters. They're doing the least interesting, most hazardous, most physically demanding jobs, and their consistency results in improved quality and productivity. As the assistant manager for automation and robotics, it's my responsibility to incorporate this technology into our production process. Training is the biggest part of it—and we do more of that than anyone. The best time to introduce automation is when you build a new plant like this one. It's a tremendous challenge, installing the equipment and upgrading the skills of the operators. We're working now on the engineering of new robots we'll need in the future. This job has been very good for me personally. The professional opportunities are unlimited.



Randy Hall: *Nashville is my hometown. I went to high school* there, and two years of vocational school, and then I worked as a TV repairman and a shoemaker. About five years ago I moved to Smyrna and went to work for a manufacturing company, but by the time I had worked myself up from the assembly line to supervisor, the plant closed and I was laid off. Nisson recruiters came to the plant for interviews, and I talked to them in December 1981. They invited me to pre-employment training, and every Saturday for eighteen weeks I studied electronics, pneumatics, and other specialties. I figured it was worth taking a chance on—and besides, the classes bettered my skills, whether Nissan hired me or not.

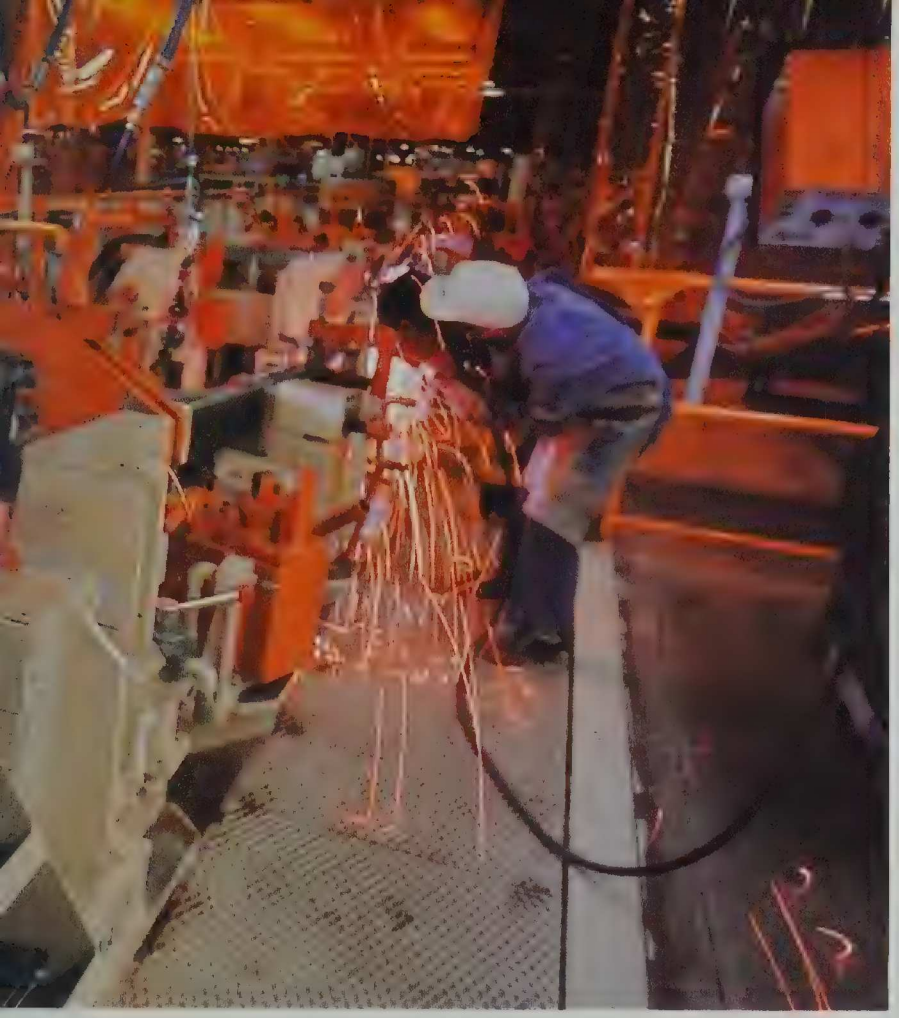
They did hire me, finally, in August 1982, and two weeks later they sent me to Japan for six weeks. I had never been on a plane before, and never been farther west than Oklahoma. It was a real adventure. My wife was pregnant when I left, and that made it hard, but the Japanese went out of their way to help us and make us feel at home. The skill training was excellent, too.

Now I'm a technician in door, fender, and hood assembly, and I can see lots of opportunities ahead to learn new jobs and move up with the company. The way I see it, this is a permanent job.

On one of the frame assembly lines, skilled technicians supplement the welding functions performed by programmed robots.

overhead conveyors to the paint plant. Fuel tanks were also assembled in the frame area.

In the body shop, parts fashioned in stamping were taken from storage and combined with purchased parts to assemble truck cabs and beds. From sub-assembly to the end of the metal line, the vehicles took on recognizable shape. Hood ledges, dashes, cowl and pan sections, and radiator supports were assembled to form engine compartments, and these cab fronts were then joined to a union of



Technicians Bobby Baskin (left) and Austin Pedigo work on cabs and beds as they move through the body assembly shop.

body sides, floors, rear window sections, and roof panels emerging from another line. Doors, fenders, and hoods were added next. Cargo beds, or rear boxes, were assembled in the same manner and placed on the line behind the cabs, though they were not attached to them.

After final welding, metal finishing, and inspection, the cabs and boxes came to the end of the metal line, where they were lifted separately onto overhead conveyors and taken to storage banks in the paint plant.

Computers scheduled and paced the movement of parts, technicians and robots assembled them, individuals and instruments in quality assurance monitored the process. Silver skeletons in the familiar shape of truck cabs emerged from the body, frame, and stamping plant; frames and beds did too, and the three component parts advanced toward their eventual bonding. These first stages of the long manufacturing process involved nearly a thousand steps, and it took about ten and a half hours to complete.

Almost fourteen hours were needed for a unit to make its journey through the paint plant, a technologically sophisticated complex of dip tanks, spray booths, bake ovens, sealing and sanding stations, finishing areas, and inspection points. About a hundred technicians were there on the launch date, and a hundred more would join them to fill the first shift.

On several levels, the paint plant could claim uniqueness. More than any other of its kind in the world, it made extensive use of robotics and computer technology, utilized phosphate applications and electrostatic techniques, followed elaborate procedures for eliminating waste and pollution, and sought to make all of its technicians and supervisors knowledgable of every step in the paint plant production process.

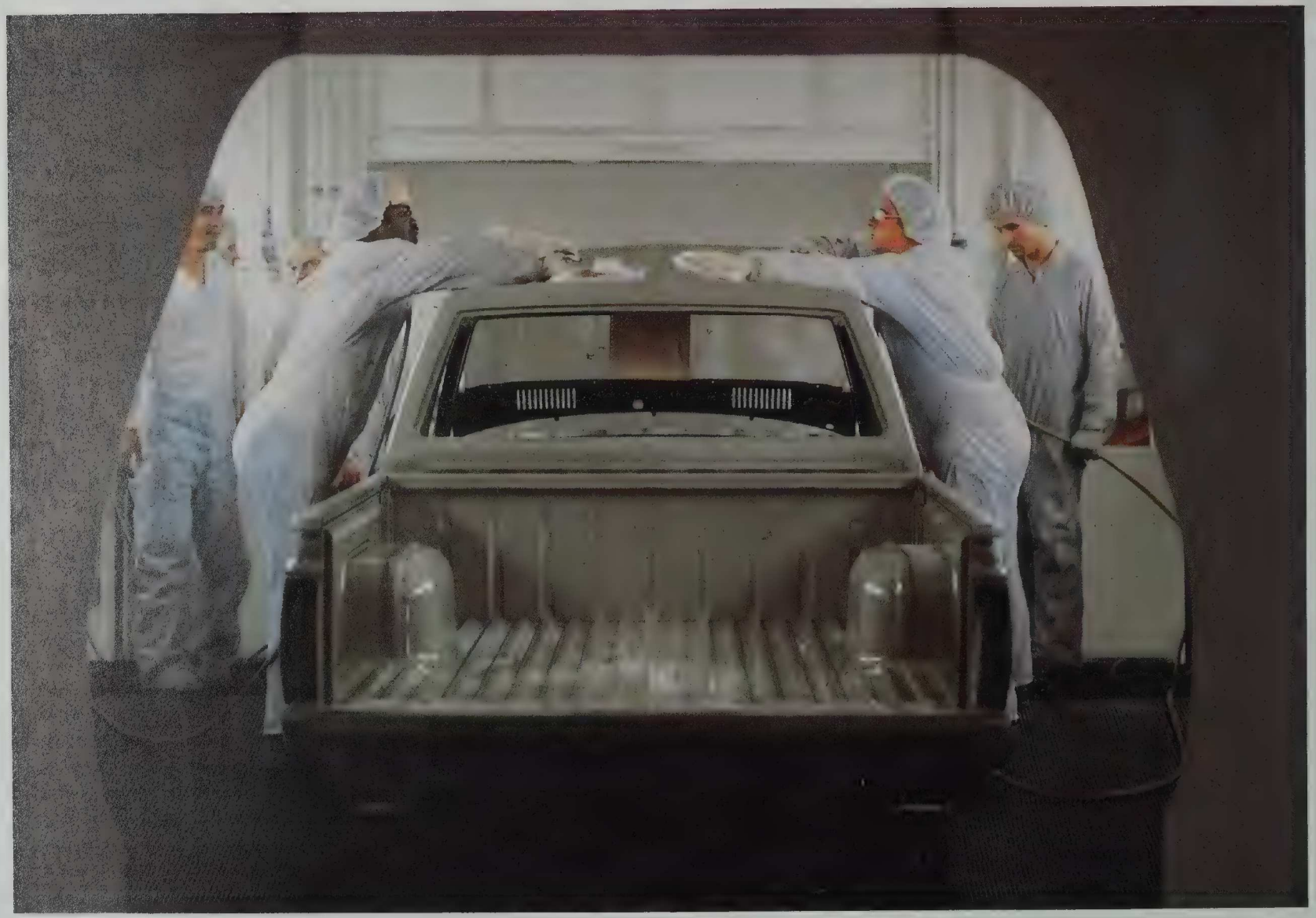
Starting with a cleansing bath in a phosphate dip tank

Plant manager Emil Hassan (left) with the paint plant leadership: Pam Nipper, Mo Brunelle, Tom Meschievitz, Jon Wallus, Tim Litwinski, Larry Zahner, and John Wozniak in front; Tom Groom, Tom Collins, Tim Slagle, and Mike Noonan in the rear

and ending with a final topcoat of chip-resistant enamel, the truck cabs and boxes went through more than a dozen dips, rinses, and sprays. Along the way, they were also baked, sealed, sanded, waxed, and inspected, and two-toned when that was called for. The process was developed under the leadership of the youngest of NMMC's plant managers, thirty-six-year-old Emil Hassan.

Hassan was born in Palestine (Jerusalem) in 1947 and came to the U. S. at the age of seventeen. He went to work for Ford on a part-time basis in 1968, and two years later, when he had finished a degree in electrical engineering at Wayne State University in Detroit, he joined the company full-time. Over the next decade he held a variety of jobs in engineering and production at Ford's Dearborn assembly plant. When Jerry Benefield, his boss at Dearborn, came to Nissan late in 1980, Hassan wanted to follow the same

Its hood open like a sea dragon's jaws, a cab emerges dripping from an electrically charged paint bath. The electrocoat immersion gives each unit an excellent protection against corrosion. Earlier, each unit is also cleaned and coated in a phosphate dipping process.



In a paint topcoat booth, specially outfitted technicians prepare a cab and bed to receive its final enamel finish.

route. He came to Tennessee early in 1981, drawn by the rare opportunity to start a new plant from scratch.

"This is the only paint plant in the industry with so many innovative features," he said. "We've gone to considerable extra expense to create a clean, healthy environment for our employees and the surrounding community. In the treatment of waste water and the incineration of solid wastes, we have the most up-to-date systems available. Our computer monitors every step in the production process and gives us instant notice of equipment malfunctions.

"In order to make our people technologically aware of what they're doing, we're teaching every technician as much as possible about how the entire plant functions. Under the old system, cross-training was much more difficult, and neither management nor the workers fully supported it; here, we're putting together a book that explains every production step in this plant in simple, understandable terms. Our goal is to make our technicians experts in the process. Nobody has ever tried that before. We've got outstanding people here. They're capable of learning it all. They're going to make this the best automotive paint plant in the world."

The cabs and beds that eventually would be bolted together on single frames to form finished trucks were matched up and top-coated simultaneously in the paint plant before continuing on separate lines to their final destination: the trim and chassis plant.

Tom Collins: *I was born and raised in Dearborn, but my* mother came from Knoxville, and I have a grandmother who lives in Ashland City, right outside of Nashville. We used to go there every summer, so I've got a lot of good memories of Tennessee. After high school and trade school I was a tool and die apprentice, and in 1971 I started a ten-year career at the Dearborn assembly plant where the Mustang is built. The company was always good to me. I held a lot of different jobs, and I moved up. My last job there was as general supervisor of maintenance, with responsibility for the whole plant.

But I knew about Nissan, and I saw an opportunity here that rarely comes along—a chance to start at the first and build a model plant from the ground up. So I took the initiative and turned in my resume to Emil Hassan, with whom I had worked before. He called me, and then Frank Stanley called from human resources, and I came for an interview. We had just built a new home in Michigan, but when they offered me the job of assistant maintenance manager in the paint plant, I told my wife and kids this was definitely the right thing to do. I had a strong instinct about it, and I followed that instinct, and I've never regretted it for a minute.

I've spent fifteen weeks in Japan, and both professionally and personally, that was a fabulous experience. I've never made friends so easily, true friends. Most of us had such mixed feelings at the end—we were homesick, eager to get back and see our families, yet we hated to leave.

And now we've got a new plant that's second to none, and the spirit of this place is unbelievable. You couldn't pry me out of this organization.

The management group in the trim and chassis plant: Stu Green, Joe DeSarla, Dan Gaudette, and Dave Jones (kneeling); John Sturgill, Brenda Barrett, Barry Abraham, plant manager Joe Kieltyka, Ernie Brewer, Bob Wright, and Russ Mabrey (standing, from left)

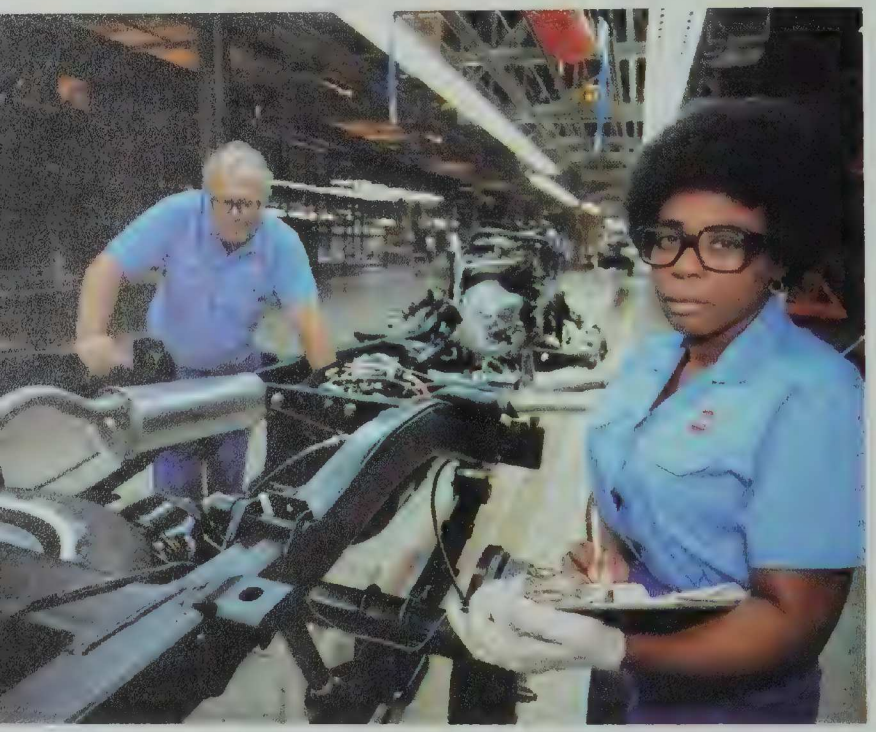
It was in trim and chassis that the finishing touches were applied to the Smyrna-built Nissan pickups. About 250 technicians and sixty-five other employees worked there on plant manager Joe Kieltyka's staff when Job 1 was completed. Their collective task and primary function was to receive separate cabs, beds, and frames and to transform them into completed trucks ready for the American market.

In six assembly zones on two trim lines, the cabs were built up with such vital components as electrical and brake lines, interior wall and roof coverings, seat belts, carpets, door latches, brake and electrical systems, pedals, heaters, air conditioners, radiators, instrument panels, headlamps, windows, weatherstripping, and steering columns.

Meanwhile, on the chassis line, frames were outfitted with front and rear axles, tension and stabilizer rods, torsion bars, rear brakes, shock absorbers, steering gears, four-wheel drive equipment, fuel pumps, and other parts. Engines and transmissions were also united, and to them were added numerous hoses, belts, and cables, as well as

Left: Technician Kent Sudberry decking a cab onto its designated chassis
Above: Technician Mary Green installing windshield molding

the alternator, the clutch cylinder, the air conditioning compressor, the power steering pump, and the radiator fan blade. After the muffler, catalytic converter, drive shaft, gas tank, and a few other parts were affixed to the frame, the engine and transmission assembly was lowered into place and secured, and the enlarged component was conveyed to the final line.



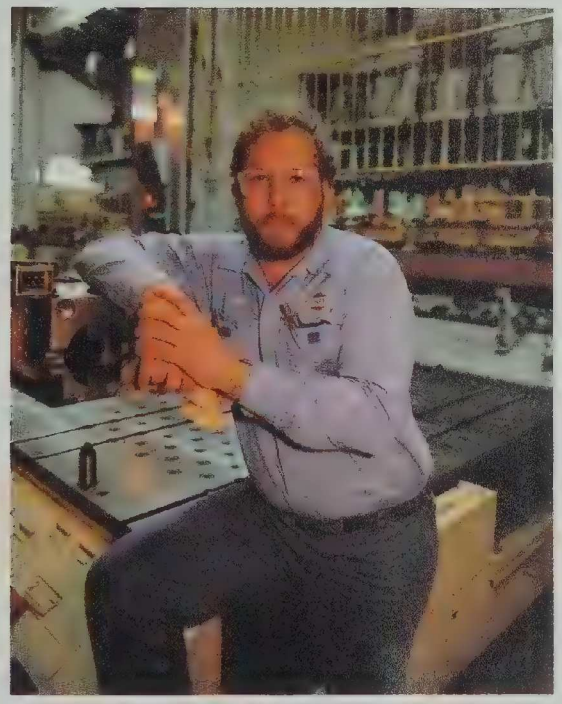
On the chassis assembly line, technicians Calvin Brown and Yvonne Bragg carry out quality assurance inspection

Waiting there for each completed chassis were the cab and rear body sections designated by the central control computer to belong together as one truck. After certain preparations were made, the marriage took place: First the cab and then the bed were bolted to the chassis. A highly automated tire selection and assembly process was next, after which all hoses and cables were connected, fluid containers were filled, and the last of the basic parts were installed—battery, steering wheel, seats, air cleaner, windshield wipers.

The truck was then virtually finished and ready for its final passage through the pre-delivery section. Though it had been tested continually at every step in the manufacturing process, it would be thoroughly inspected and evaluated once more. Wheel alignment, brake and transmission checks, headlight adjustment, a water test to certify that the vehicle was leak-free, and a protective wax coating sprayed on the undercarriage were completed, and the truck was ready at last to be taken to market. A few a day at first would be driven out the doors at the end of predelivery; within a year, the procedure would be repeated 10,000 times a month.

Joe Kieltyka spent almost twenty years at Ford gaining the experience to plan and direct the diverse procedures in a trim and chassis plant. He had gone to that opportunity with an unusual background, having been born in Poland, raised as a wartime refugee in Europe and the Middle East, and educated in England and the United States. In his years at Ford, he had earned a reputation for his ability to develop cooperative teams of employees, instilling confidence in others and delegating authority effectively.

"I liked what I was doing at Ford, and liked the company," Kieltyka said, "but when Nissan announced its plans to build here, I wanted to be a part of the effort. I sincerely believed that we could make a better product in a new plant with a new management philosophy—and now that we've started, I'm more convinced of it than ever."



Mark Martin: *When I got out of high school in Detroit,* I worked for a while as a carpenter and then got a job in a Ford stamping plant. Stayed there nine years. My wife was a legal secretary, and we were used to having two paychecks, but then I got laid off in 1981. A friend of mine came here and got a job with Nissan, and I thought if we were living in this area, I might be able to do the same thing. So we moved here, and I started a carpenter shop and applied to the company. It felt like a worthwhile gamble—I had the experience and the skills they were looking for, and I knew they would see that when they interviewed me.

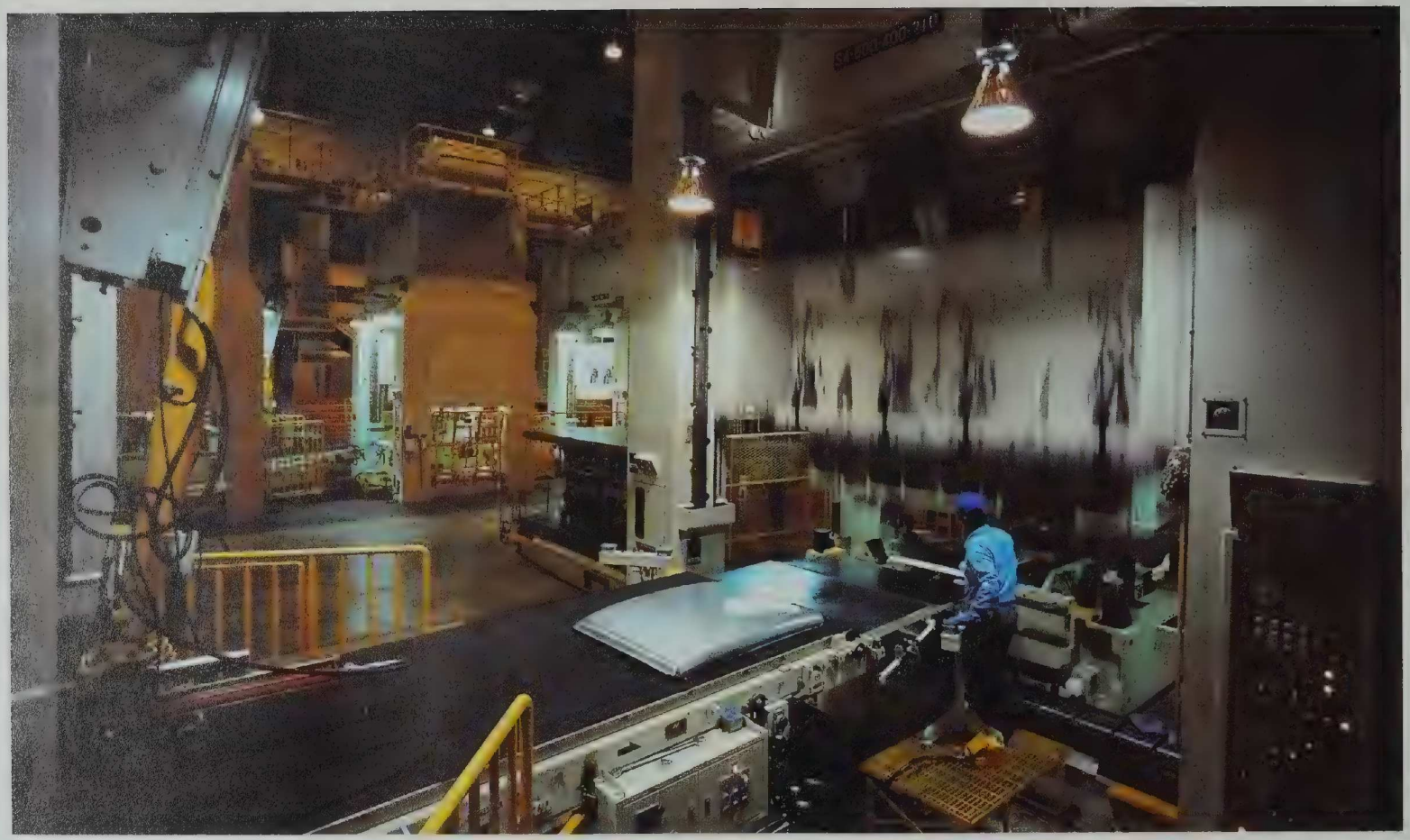
Six months later, in August 1982, I was hired as a technician in stamping, and pretty soon I went to Japan for two months with my operations manager and six other guys. That was a very satisfying experience. At Ford, I never even *met* my operations manager.

That's just one of the differences between this place and others in the industry. Instead of strict job classifications and so many layers of bosses, you can cross-train in different jobs here, and there's more give and take with management. You're encouraged to express your ideas, and they're taken seriously, and differences of opinion are not a cause for reprimands.

It's definitely better for me. My wife's a legal secretary in Nashville now, and we like Tennessee, like the milder winters and the friendly people. I'd say we're here to stay.

MONDAY, APRIL 4, 1983: The huge presses that stamped hoods and fenders and fuel tanks were at rest. At the work center between the gigantic machines and the rolls of flat steel that fed them, technicians and supervisors and secretaries helped themselves to coffee and doughnuts. This minor social occasion had been arranged to take note of a significant milestone at NMMC: the beginning of commercial production in body, frame, and stamping.

Plant manager Rick Sommer said a few words of praise and thanks to the stamping employees, and so did operations manager Dick DeMara. They had done outstanding work in the two trial-run production phases, Sommer said; now, from this day forward, the parts they made would be used in the assembly of Nissan's new Tennessee trucks. The time had come to start filling the system, and the place to begin was here.



With tremendous force, a 1000-ton tandem press stamps cab roofs.

The process of accumulating production parts and components throughout all three NMMC plants was called system fill. The objective was to place a unit at every work station and enough additional ones in reserve storage banks to maintain capacity production flow even when there were temporary interruptions in the assembly process. It would take more than six months to fill the system from its beginning in stamping to its end in the pre-delivery area of trim and chassis.

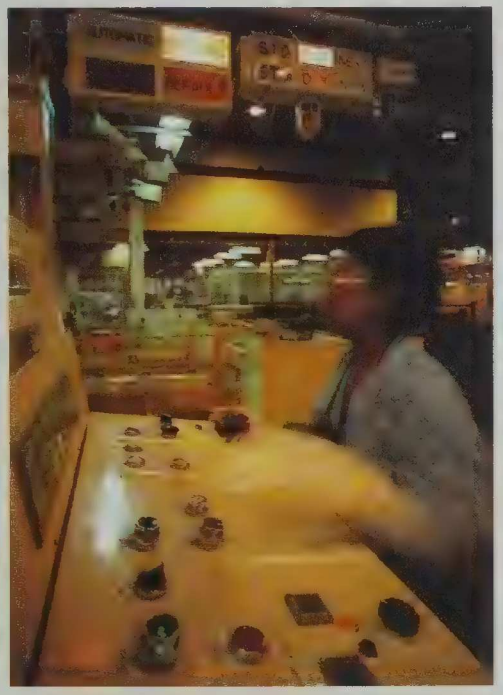
When the refreshments were gone and the words of praise were finished, the stamping technicians went back to their presses. The 1,000-ton tandem press on line three was activated soon thereafter, and without further ceremony, supervisor Bill Little and his crew initiated the four-step process that converted flat pieces of steel into hood inners. The first 830 of these were completed the next day. They were placed in racks and taken by tow-conveyor to a storage area in the body shop, there to wait for the start of the assembly process.

Thursday, April 28: With a full complement of parts at hand, technicians in the body shop began sub-assembly in supervisor Marvin Jackson's zone, where engine compartments were built of hood ledges, lower dashes, radiator core supports—over fifty parts in all, some shipped in, the rest stamped in the plant and united in sub-assembly operations.

Before these cab fronts were sent by conveyor to be joined with sections emerging from the parallel cab main line, a serial number would be stamped by machine on the top of the radiator support. On Monday, May 2, the first of these units was routinely stamped with a six-digit number: 300001. That would become the Job 1 truck.

In the complex scheme of parallel lines and simultaneous assemblies, it would be impossible for the units to move in unbroken numerical sequence through every step of development and roll off the last line as finished trucks in neat 1-2-3 order; instead, 300001 might be followed by 300033, then 300007, then 300019. By Job 1 day, about forty vehicles would have been completed, and any one of them could rightfully stand as the symbol for all the others. But there was significance in the number 300001—unmistakably first in a series—and on launch day it would be placed at the head of the line and given the primary designation of honor as Nissan's first Tennessee truck.

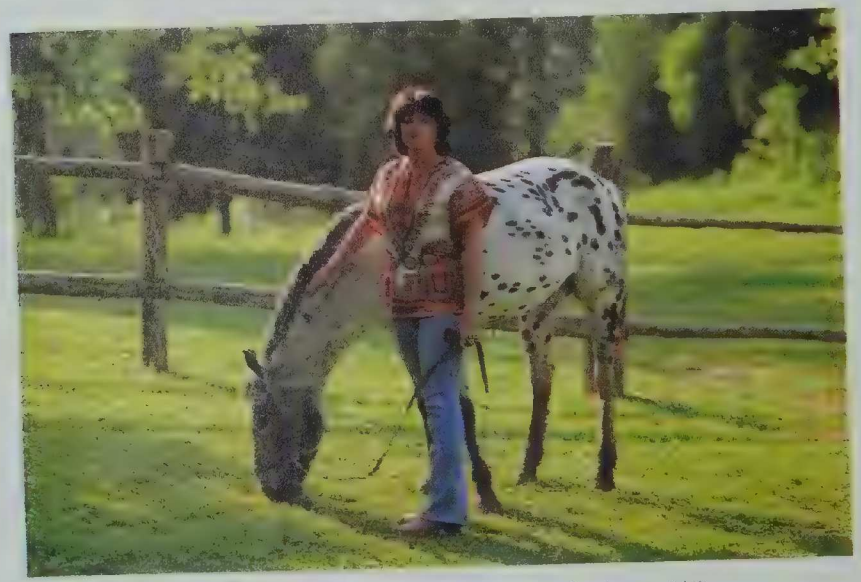
Operations manager Elton Coleman directed the body assembly work of nine production supervisors and their teams of technicians. Together, they gave shape and substance to the cab and rear body of every emerging truck-to-be. On Tuesday, May 10, all of the body shop



In the body sub-assembly process, each unit is stamped with a serial number. Operating the numbering machine is technician Kathy Thomas. Later, in the trim and chassis plant, the number will be applied again, on the frame and on the dashboard.

employees and a number of others gathered at the end of supervisor George McDonald's final metal finish line, the last assembly zone in body, frame, and stamping, to observe a special event: the departure by conveyor of the first two units to be completed there.

"Just about everybody who had had a hand in it was present," Coleman later recalled. "The maintenance and material handling and quality assurance people, the engineers and the Japanese assistance team, all of our support staff, and of course our production technicians and supervisors. Rick Sommer said a few words, and I did too, and then we turned the line back on and watched the first two units go into the drop-lifter and off to their next destination in the paint plant. I don't remember what the serial numbers were on those two units, but it really didn't matter—they were our Job 1 trucks, and we are celebrating their completion."



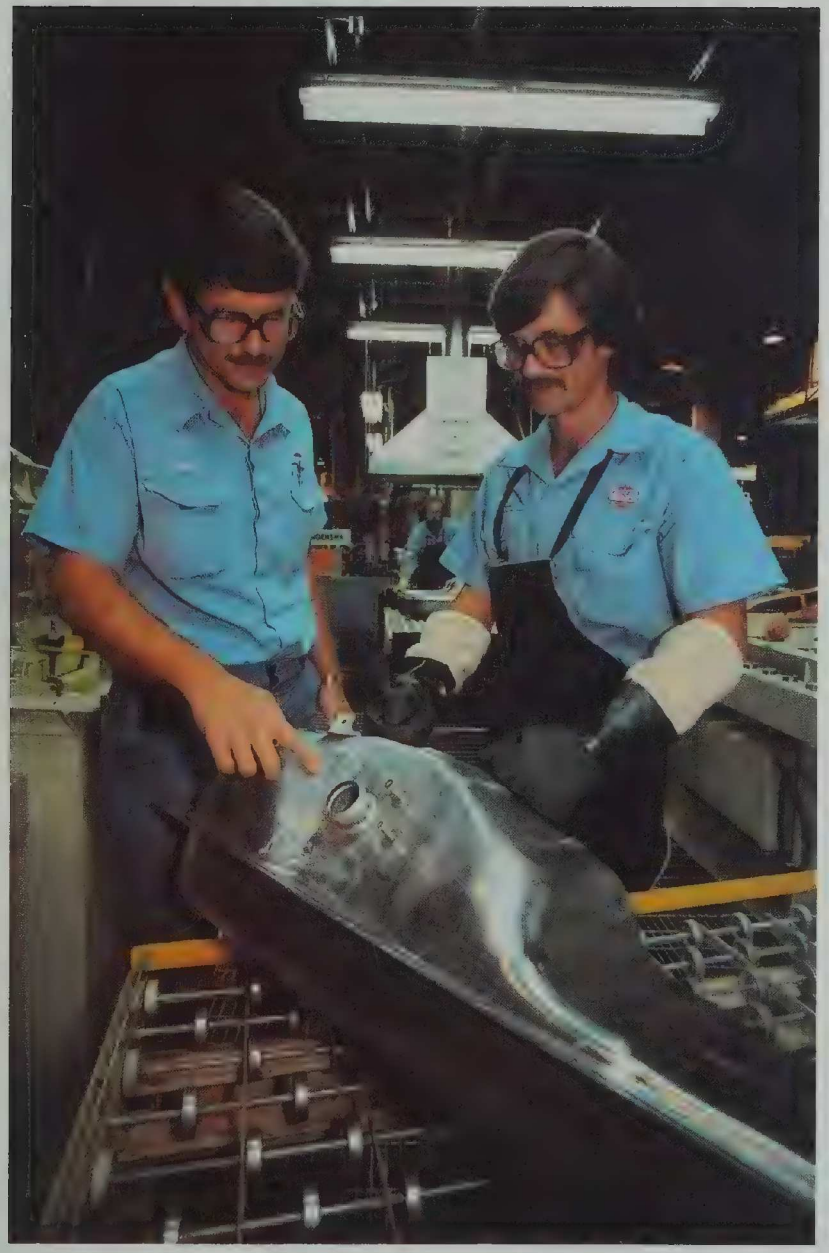
Hiett with prize Apaloosa (above) and on body assembly line (upper right)

Geraldine Hiett *now lives on—and owns—the farm where she was raised in Wilson County, a 500-acre tract that has been in her family for seven generations. She followed her father into carpentry, and one example of her handiwork is the house she now lives in with her husband and daughter. She is also a horse trainer and an artist, painting pictures that reflect her abiding interest in her American Indian heritage. But mostly, she works:*

I grew up working, and I've just kept on doing it all my life. I worked for the Tennessee Valley Authority as a carpenter for five years—the first female journeyman, foreman, general foreman, and assistant superintendent they ever had. When Nissan came here, I wanted to work for them, wanted to learn about Japanese culture and management, but the only way I could get my foot in the door was to do what I knew best: be a carpenter. I got hired by Daniel Construction Company, and my crews built the forms for the concrete floors in the plant.

In the spring of 1982, about six months after I started there, I put in my application for a job in the plant. I got called for several interviews, and in May they hired me to be a supervisor on the metal line in body, frame, and stamping—so now I work on the same concrete floor I helped to build.

I've been to Japan twice, for a total of three months. The Nissan philosophy is what I've been doing all my life—treat everybody like they're *people*, let them be a part of things. It's a hard way to operate, but it's the best way. It takes time to interview and hire good people. The ones who work for me are as good as they come, and we're close—like kin. With people like that, Nissan is bound to be a big success.



Operations manager John Shaw (left) and technician Danny Wood examine a fuel tank. Tanks and frames are assembled in Shaw's zone of the body, frame, and stamping plant.

Wednesday, May 18: On the frame assembly lines, work had begun in the meantime to combine about fifty parts into the foundation units upon which the trucks would rest. Seven types of frames were assembled here, grouped by type, stacked three high in special carriers, and sent on to the paint plant via overhead conveyors. (Fuel tanks were also assembled in this area, and like the frames, they were painted black and passed on to storage areas in the trim and chassis plant.)

On this day, operations manager John Shaw hosted a gathering similar to the earlier ones in the stamping the body areas. With the first rack of three frames waiting to be forwarded to the paint plant, Shaw cut into a cake topped with a miniature frame and delivered "about a six-word speech" of appreciation to all concerned. "I just thanked them for what we had accomplished together," he said. "It seemed like that day had been a long time coming—but when it finally got here, it felt good, real good."

Thursday, May 19: The first cabs and beds to come out of body, frame, and stamping had gone into a storage bank and been matched by computer for their journey through the paint plant and their eventual bolting onto chassis units. The start of that passage through paint was on May 13 in operations manager Tim Litwinski's area.

We knew these were the Job 1 units, of course," he said, "and we were anxious to get started on them. I remember that B. J. Kemp, one of my supervisors, gathered her thirteen technicians around the hood of the first cab, and they piled their hands on top of it and let out a big cheer, just like a football team. Everybody was fired up and ready to go."

In Litwinski's area, the units went through a series of phosphate dips, rinses, and electrocoat treatments. Next, their seams and joints were carefully beaded with a vinyl sealer, and they were sprayed with a sound deadener. Then a primer-surfacer was administered, and they were dry-sanded.

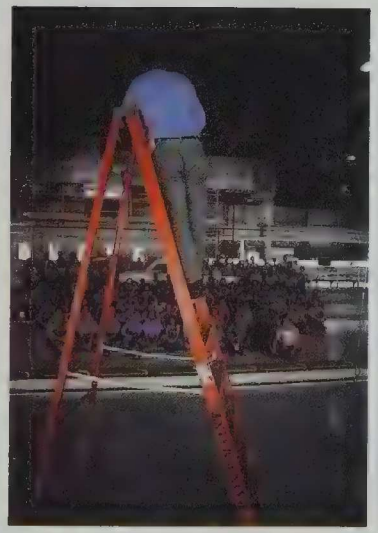
It was May 19 before the first units reached operations manager Larry Zahner's area to be topcoated and bake-dried. Each paired cab and bed would be given two enamel topcoats (and for metallic finishes, an additional clear coat would be added).

It was afternoon when the Job 1 cab, stamped 300001, emerged from supervisor John Bourne's final topcoat booth with its companion cargo bed trailing behind. They wore a glistening white sheen that had been applied by robots, rotary atomizers, and skilled technicians. Together, they continued through a bake oven for thirty minutes, reach-

Kathy Landry: *In 1978, my husband and I and our two little* girls moved to Murfreesboro from Maine, looking for work. We found jobs pretty quick. Mine was as a spray painter in a factory. They laid me off in April 1982, and I applied to Nissan. They hired me four months later and sent me to Japan to train me as a technician on the sealer line in the paint plant.

Sealing is an art. You have to practice it. You can't just pick up a gun and lay a perfect bead without a lot of training and practice. The Japanese who trained us were experts, real masters. They were very patient with us, and cared about us, and they were fun to be with, too. It was a wonderful experience. I still miss it. Some of the trainers have come here to continue our preparation. Like Mr. Oyama—he's the sealer superintendent at Kyushu. They've given us the best instruction we could possibly get anywhere.

Coming from Maine, we found the Tennessee summers extremely hot—but we don't miss the long winters. I doubt if we'll ever move back up there. I'd like to keep working here until I retire.

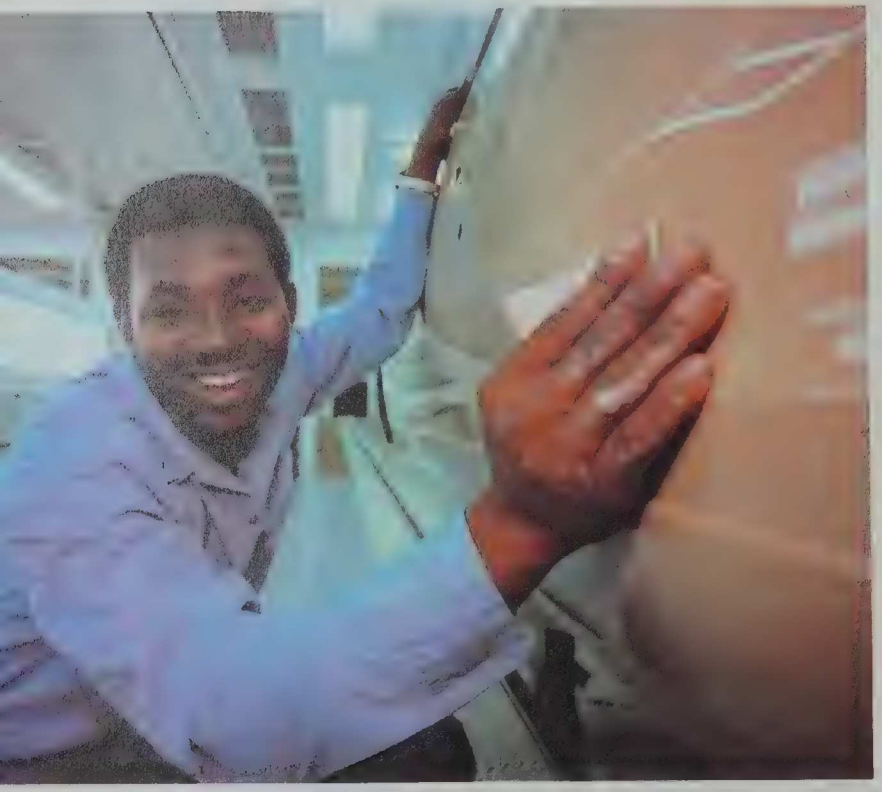


Operations manager Larry Zahner observing topcoat application (far left); technician Scott Claibourne at work in the touchup booth (below); and the entire paint plant staff posing for a photographer (left)

ing a temperature of 285 degrees Fahrenheit. The Job 1 truck now had an identifying color as well as a number.

On the following day, operations manager Tom Meschievitz and his three teams of supervisors and technicians took over, applying the final touchup, waxing and polishing, and examining the vehicle with the assistance of quality assurance inspectors. A few days later, on Wednesday, May 25, paint plant manager Emil Hassan called his staff together to observe the completion of their Job 1 truck.

"We had the white unit and one other ready to be sent to trim and chassis," he explained, "and I wanted to thank everybody for doing a great job. We had a little party out in the plant, with homemade sandwiches and soft drinks. No speeches—we just wanted to share the moment. And then we had our picture made with the Job 1 truck, so we could all have a memento of the occasion."



Frank Johnson: *It's seventy miles one way from the plant to* my home in South Guthrie, on the Kentucky border. I've been driving it every work day for over a year now, and it gets tiresome, but I really don't mind. The job is worth it.

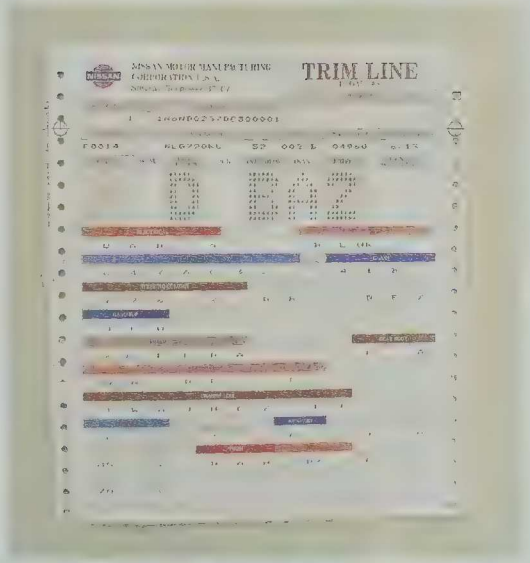
I first applied here in the fall of 1981. I had worked for several years in the paint shop of a manufacturing company in Clarksville and then for about a year at a company in Springfield. One Sunday I saw an ad in the paper saying Nissan was looking for people with electrostatic and paint booth experience, so I answered the ad, just as a wild shot. Six months went by and nothing happened, and I had just about forgotten about it, and then out of the blue they contacted me. After some interviews I went into pre-employment training, and then they hired me and I started to work in August 1982.

The idea of working *with* somebody instead of *for* somebody sounded great to me. Some people around where I live thought I was crazy to drive this far, but I wanted the job real bad, and I was willing to sacrifice for it. Now those same people tell me how lucky I am. They don't know the half of it. It's even better than I thought it would be.

I'm a technician in the final inspection and spot repair zone of the paint plant, the last stop before the trucks go into trim and chassis. I'm one of eight people on Scott Winstead's team. He's young like us, and easy to talk to. We're a tight group, with a lot of pride—we want to be the best. Some of us came here together, and went to Japan together. That was hard—six weeks in a strange place with eleven guys you just met—but we learned a lot. I'm really glad I had the experience.

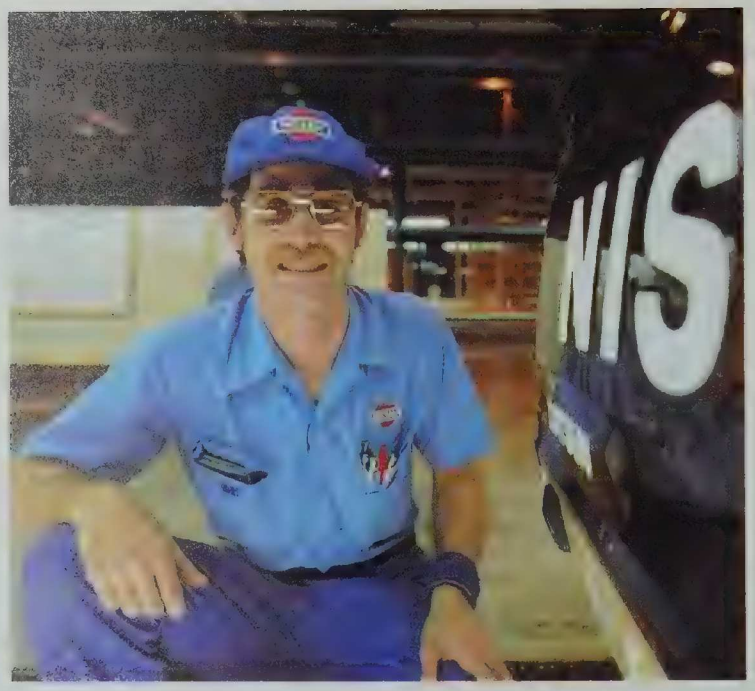
Monday, June 6: At 7:45 a.m., a standard Nissan pickup cab with a solid white topcoat of paint rode the drop-lifter down to the first station on the trim line. On the teletype machine nearby, a broadcast sheet arrived from the central computer room, describing in coded letters, numbers, and colors the specific components to be added to the unit. The broadcast sheet also identified this unit as Number 300001—the Job 1 truck. It had been in storage for twelve days, being joined there each day by others issuing from the paint plant to start filling the system in trim and chassis.

Joe Kieltyka, the trim and chassis plant manager, was waiting for Job 1 with Joe DeSarla, operations manager of the trim lines. DeSarla's six supervisors and fifty-two technicians waited too, eager to begin production. As the morning wore on and the first truck made its way along the



The broadcast sheet describes each truck's makeup.

On one of the trim assembly lines, technician Paul Easley equips a truck with headlamps.



Joe Tipton: *When I was fourteen, I started working in my* grandfather's body shop on Highway 231 North out of Murfreesboro, and I've been working on cars ever since—sanding, taping, paint and body work, electrical wiring. I'm sort of a jack of all trades. When I applied to Nissan in January 1982, I already had about fifteen years of experience—and I was less than thirty years old.

I always wanted to work in a place like this—it was my ambition. I knew if they gave me a chance, I could do any job they had to be done. I started into pre-employment training in April, but they pulled me out before it was finished, hired me and sent me to Japan. My wife was expecting a baby, and we knew it would be born while I was gone, but we had already talked about it and decided if they offered me a job, I would grab it. I knew if I got my foot in the door, I was going up—if it could be done by hard work, honest work, I was going up.

The training we got here and in Japan helped a lot. I've learned some new techniques, and also learned about communication, cooperation on the line, helping one another. My trainer in Japan, Asada-san, is here now, and we're training the new people coming on. Our team of technicians and our supervisor, John Spies, have a goal of learning every job on the final line—and after that, there'll be more to spread out and do. This is a lifetime job. We'll never run out of challenges.

two trim lines, DeSarla followed it from station to station, greeting his employees by name as he went. He kept a complete roster of their names in a little book in his shirt pocket, but on this day, he never had to refer to it.

"It'll be harder to remember everybody when we have 170 technicians a year from now," he said, "but I'm getting to know them as they come on board, and that makes it better."

The beginning of production was gradual and deliberate. Between June 6 and June 16, a total of forty-one trucks—an average of about five each working day—completed their passage to the end of the trim and chassis plant. At the same time, the reserve banks of component units were also slowly filling, as they were in the other two plants. The way was being prepared for phased acceleration of the production process over a period of about twelve months.

From the first station on the trim line, the Job 1 truck inched its way forward. In this last plant, it would take on more than a thousand parts. In zone four of the trim line, it would also take on a more detailed identity in the form of a plastic VIN tag bearing a seventeen-digit number. One of supervisor Tom Parker's technicians attached it to the dashboard so that it could be viewed through the windshield. The last six digits were the same as the numbers that had been stamped on the radiator frame. The complete number could be translated by computer to provide a detailed description of the vehicle, including its time and place of manufacture. Just before noon on June 6, the Job 1 truck received for the first time its complete vehicle identification number:

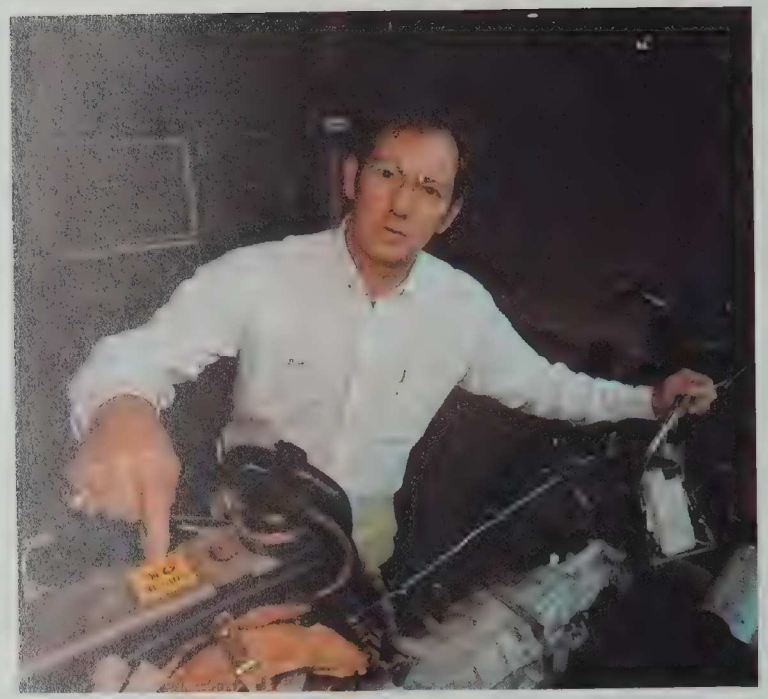
1N6ND02S7DC300001

Technician Richard Savage punches out the full vehicle identification number—the VIN plate—by machine and then attaches the plate to the dashboard.

On the chassis line, in the meantime, truck frames were being built up with axles, engines, transmissions, and other vital parts, each one becoming a completed chassis; six supervisors guided that process for operations manager Dave Jones. In zone four, supervisor R. C. Brown and his technicians counted as one of their responsibilities the stamping of the vehicle identification number on the frame.

The final line was next, and here, four supervisors under operations manager Stu Green directed their cadres of technicians in the completion of the long and complex assembly process. And in supervisor Erv Miller's zone of the final line, a marriage that had been arranged by computer long before, many hours and miles up the line, finally took place.

The fully outfitted chassis moved into place on the



Dave Jones *left Lewisburg, Tennessee, right out of high school in 1959, and four years later he began an eighteen-year career with Chrysler in Detroit. In 1980, when hard times had come to the American automobile industry, he started looking for new opportunities. One day his mother sent him a clipping from a Nashville newspaper, announcing the Nissan was going to build a plant in Smyrna. To Dave Jones, the news was like a one-way ticket home:*

I checked and found out their Southfield location, and right away I called and got Bill Warren, who was just starting to recruit staff for them. I asked him to get me an appointment with Jerry Benefield. He referred me first to Joe Kieltyka. That was in January 1981, and in June they hired me to be operations manager of the chassis line in the trim and chassis plant. It was like a dream come true.

My wife and kids are all natives of Michigan, but I'm a Tennessean, and when we moved here, I really found my roots. I had ancestors in Murfreesboro back in the 1840s, and now I've met relatives in Rutherford County that I didn't even know existed. I can't tell you how great it is to be here.

As far as the job is concerned, there's no comparison. I've got great latitude to run the chassis area without interference, and I've got a team of supervisors and technicians who are outstanding in every way. This is a new and exciting place. We're making more than trucks—we're making history. I enjoy it so much, I honestly don't look forward to weekends.

On the pre-delivery line, quality assurance technician Shirley Templeton certifies that a truck has passed all NMMC inspections.

line. The Job 1 cargo bed was slowly lowered into position above it, and its matching white cab soon followed. Technicians Billie Bohannon and William (Padro) Featherstone skillfully maneuvered the three major components into place and then bolted the cab to the chassis. Next, on supervisor Dan Tomlinson's line, the rear box was secured. The truck-in-name was at last a truck-in-fact. Job 1 was a united body, bed, and frame, a Tennessee Nissan Truck.

A representative of Nissan's California-based distributor signs off on a Tennessee truck bound for market.

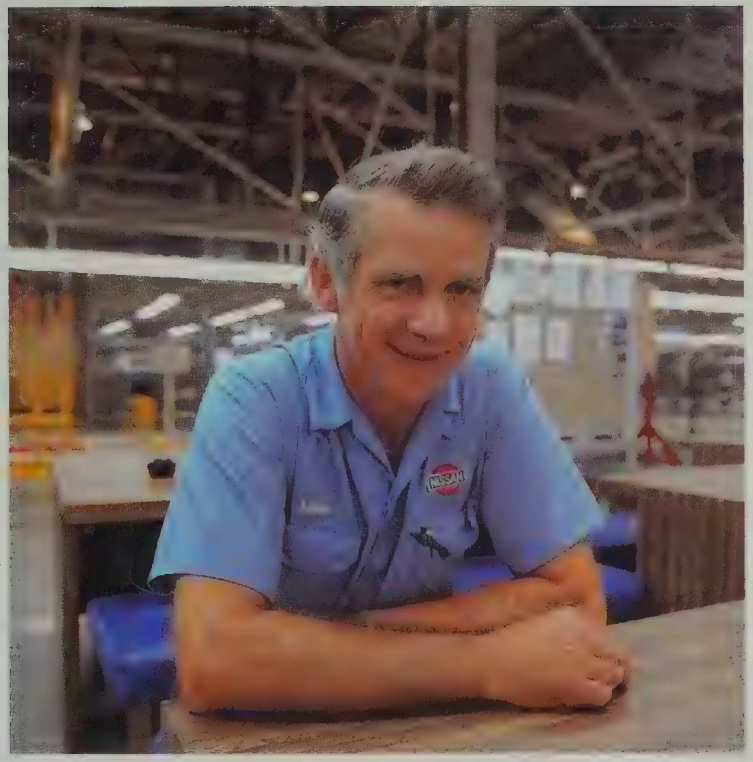
Julie Corcoran: *After I graduated from Virginia Tech in* 1978, I started working as a management trainee at a textile company in North Carolina. In three years with them, I got a taste of jobs in several different areas—production, training, research and development—and I even went through the trauma of a plant closing. That was a bit discouraging, and I had about decided that I didn't want to work in manufacturing. But then, by a fluke, I got a job as an employee relations ombudsman with a company here in Murfreesboro in the spring of 1981. The following January, I got interested in Nissan and decided to apply for a job with them. They needed supervisors with experience, and I had four years of it with two different companies. They offered me a job that spring, and I started to work in May 1982.

Going to Japan for seven weeks was very helpful to me, both for the training I received and for the cultural experience, which was wonderful. Now I'm a supervisor in the pre-delivery area of trim and chassis, in the next-to-last zone before the exit. I'll eventually have twenty technicians working with me.

I feel really lucky to be here. Production supervisors have a lot more responsibility in this plant than in any others that I know about. In hiring, in equipment and supply ordering, in the total operation of our zones, we're the leaders. I like the people I work for and the ones who work for me. It's really not a boss-worker atmosphere at all—it's a lot more personal and relaxed than that. I look on this as a permanent job, a job with a future, and so does everybody else.

Technician Jeff Nale registers a vehicle token card at the last recording checkpoint at the end of the pre-delivery line. The computer-coded card, which resembles a miniature flyswatter, is used throughout the assembly process as an identification device.

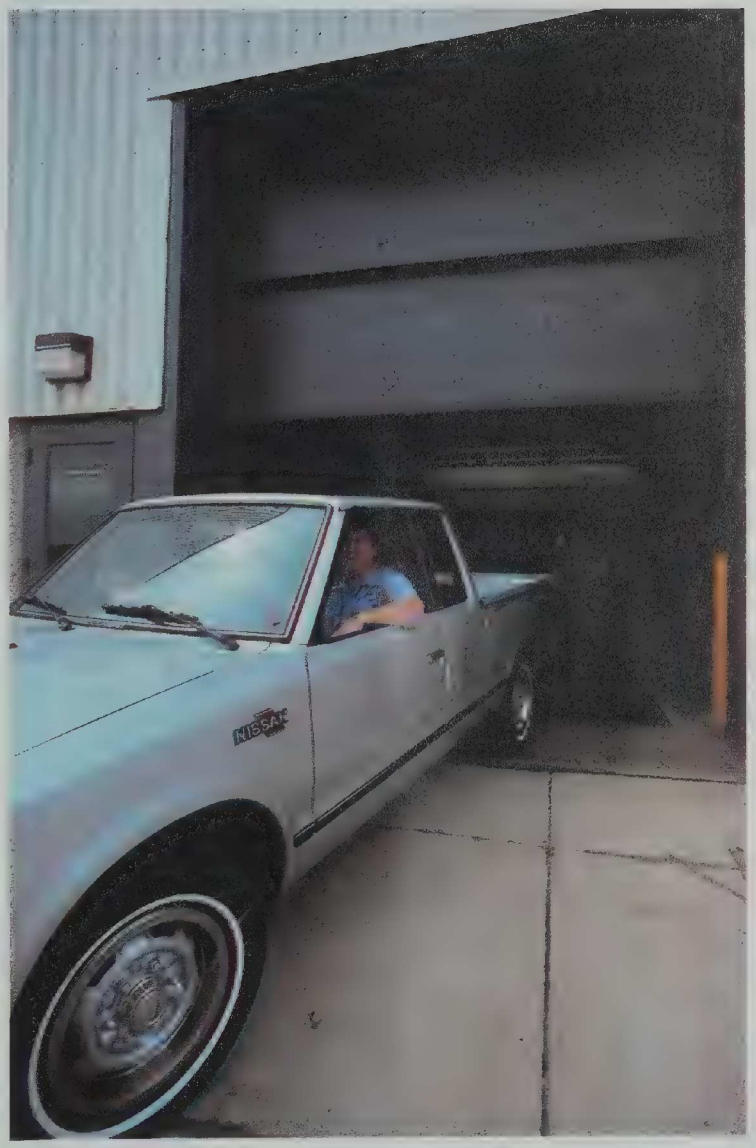
In the remaining days before the June 16 ceremony, Job 1 and the other vehicles on the maiden voyage of NMMC completed their passage through the final production phases. Among the hundreds of NMMC employees who watched this unfolding drama with a special feeling of satisfaction was pre-delivery operations manager Ernie Brewer. A native of Memphis, he had started to work in the Ford assembly plant in his hometown when he was just seventeen years old. When the plant was closed two years later, he had followed Ford north to Ohio and Michigan,



Pre-delivery operations manager Ernie Brewer

and for the next twenty-five years he had stayed there with the company.

"I always wanted to come back to Tennessee," Brewer said, "but there was no way I could do it. I was an automotive man, and there wasn't any place here for me to work. Ford was good to me all those years, and I figured I was in Michigan to stay. The only way I ever would have left there was to get back to the state of Tennessee. Now, thanks to Nissan, I'm happy to be home again—making Tennessee trucks."



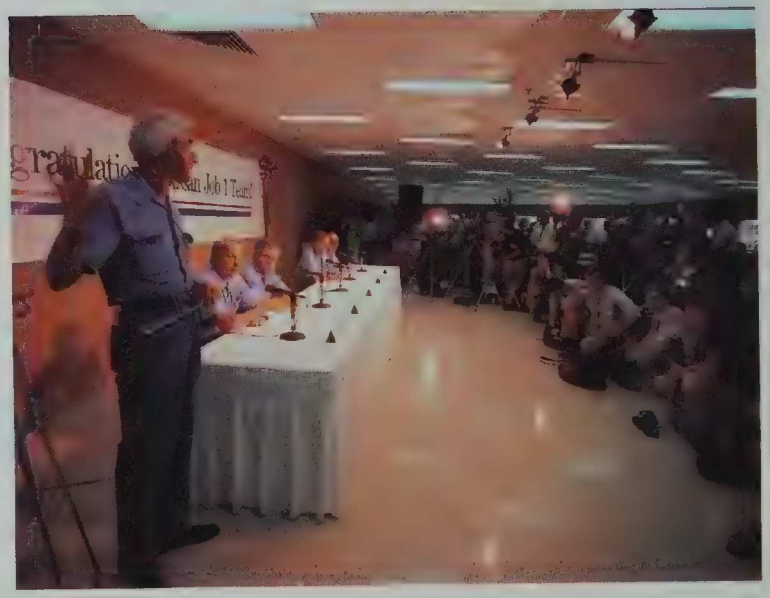
Technician Ron Carr drives a finished product of NMMC out the pre-delivery exit and into the American marketplace.

THURSDAY, JUNE 16: Since early morning, the Job 1 truck and nineteen others similar to it had been parked in a perfectly aligned column at the end of the final line. The lead vehicle was a gleaming white standard cab with blue deluxe interior trim, a long bed, a 2.4-liter gasoline engine, power steering, and an automatic transmission. When all the celebrating was over, it would eventually be placed on permanent loan with the Tennessee State Museum in Nashville, there to be a featured product in the "Made in Tennessee" exhibit. The other trucks—black, blue, tan, and silver variations of Job 1—would soon be turned over to Nissan's distributing company for shipment to domestic dealers. By the end of June, about 140 trucks would be ready for market. Approximately 400 more would be produced in July, and the number would escalate steadily to a total of 7,500 a month by the end of the year and 10,000 a month by mid-1984.

As the 11 o'clock hour of ceremony approached, most of the 1,338 employees on the payroll of Nissan Motor Manufacturing Corporation U. S. A. and the fifty or so remaining members of the parent company's Japanese launch assistance teams had gathered at the final line. A large contingent of media representatives also was present. A speakers platform had been erected close by, and a blue paper banner proclaiming June 16, 1983, as Job 1 day for Nissan was moved into place in front of the white truck.

At 11:05, Marvin Runyon mounted the platform, followed by Jerry Benefield, Rick Sommer, Emil Hassan, and Joe Kieltyka. The assembled throng responded with a rousing, prolonged cheer.

Sommer spoke first, briefly relating the journey of the Job 1 truck through body, frame, and stamping and thanking all who had a part in it. He then handed the vehicle's keys to Hassan, who praised "the paint family . . . and everyone at NMMC who made this day happen." The keys next passed to Kieltyka, who congratulated his own trim and chassis employees and the entire company "for giving us the finest." Then, with Benefield proudly watching, Kieltyka gave the ring of keys to Runyon and said, "Thank you for your leadership and support."



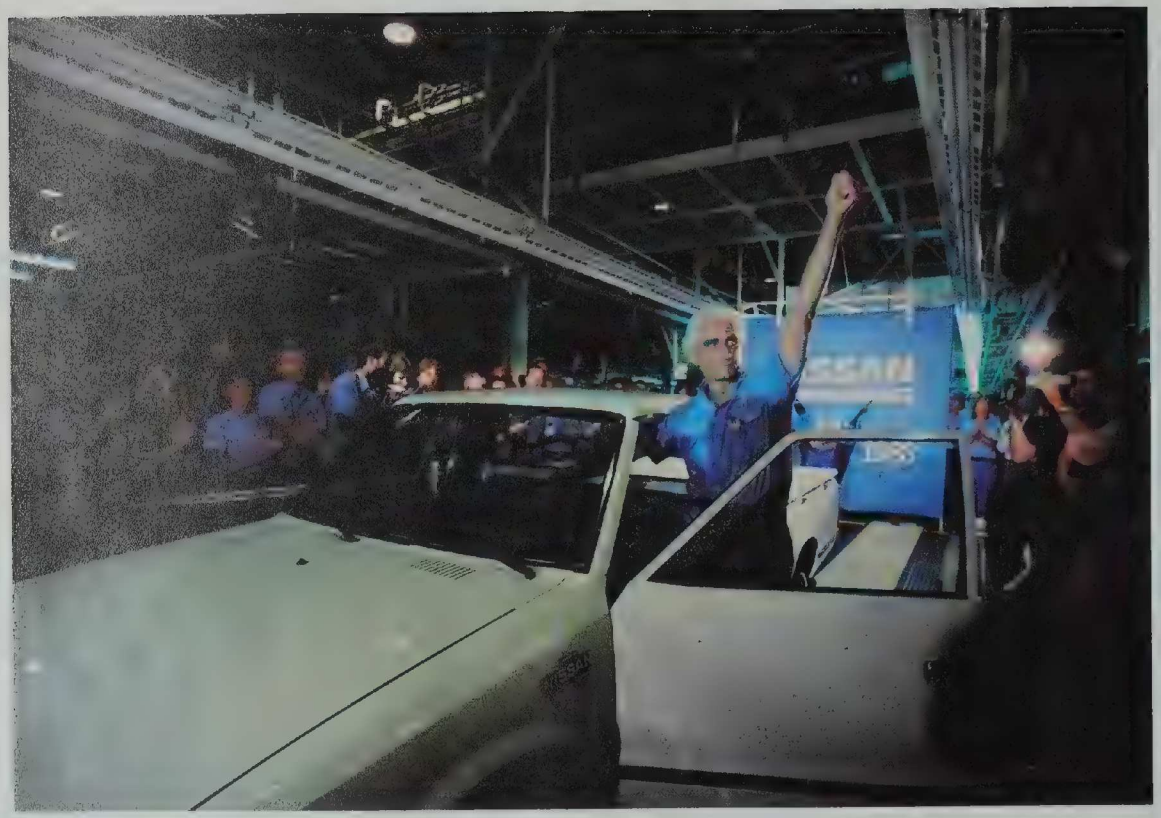
At a press conference before the Job 1 day ceremony, Marvin Runyon makes a point as his colleagues listen. From left: Rick Sommer, Joe Kieltyka, Jerry Benefield, and Emil Hassan

The crowd erupted in sustained cheering and applause. When the tumult subsided, the president and chief executive officer warmly praised "the tremendous effort of everyone in this achievement, this goal," calling the staff "the best-trained employees I know about, anywhere." He also expressed deep appreciation to the parent company, which "from the outset has wanted us to be an American company with American employees building an American product." He then read a letter from Takashi Ishihara, president of Nissan Motor Company, Ltd., thanking the people of NMMC for "the best present NML could possibly receive" in its fiftieth anniversary year.

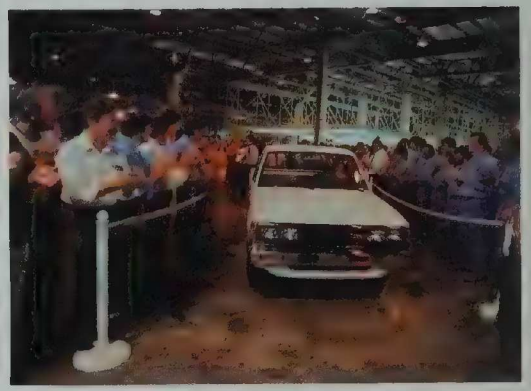
Behind a paper banner proclaiming June 16 as Job 1 day, Runyon held the keys to the company's first Tennessee truck—and then, as the crowd cheered, he drove it through the banner.

Then, as the cheers and shouts echoed through the plant, Runyon walked over to the Job 1 truck, climbed in behind the wheel, started the engine, and drove through the paper banner.

In a sense, the symbolic emergence of the first commercially produced Nissan pickup truck was an anticlimax. Nine years of preliminary effort had preceded it, including two and a half years of on-site planning, construction, tooling, staffing, training, and trial-run practice. No act of symbolism, however elaborate, could adequately represent those millions of hours of effort and accomplishment. Each of the more than 8,000 individuals who had played some part, large or small, in the development of Nissan Motor Manufacturing Corporation U. S. A. would have memories of the experience to cherish. This would be one of the memories.



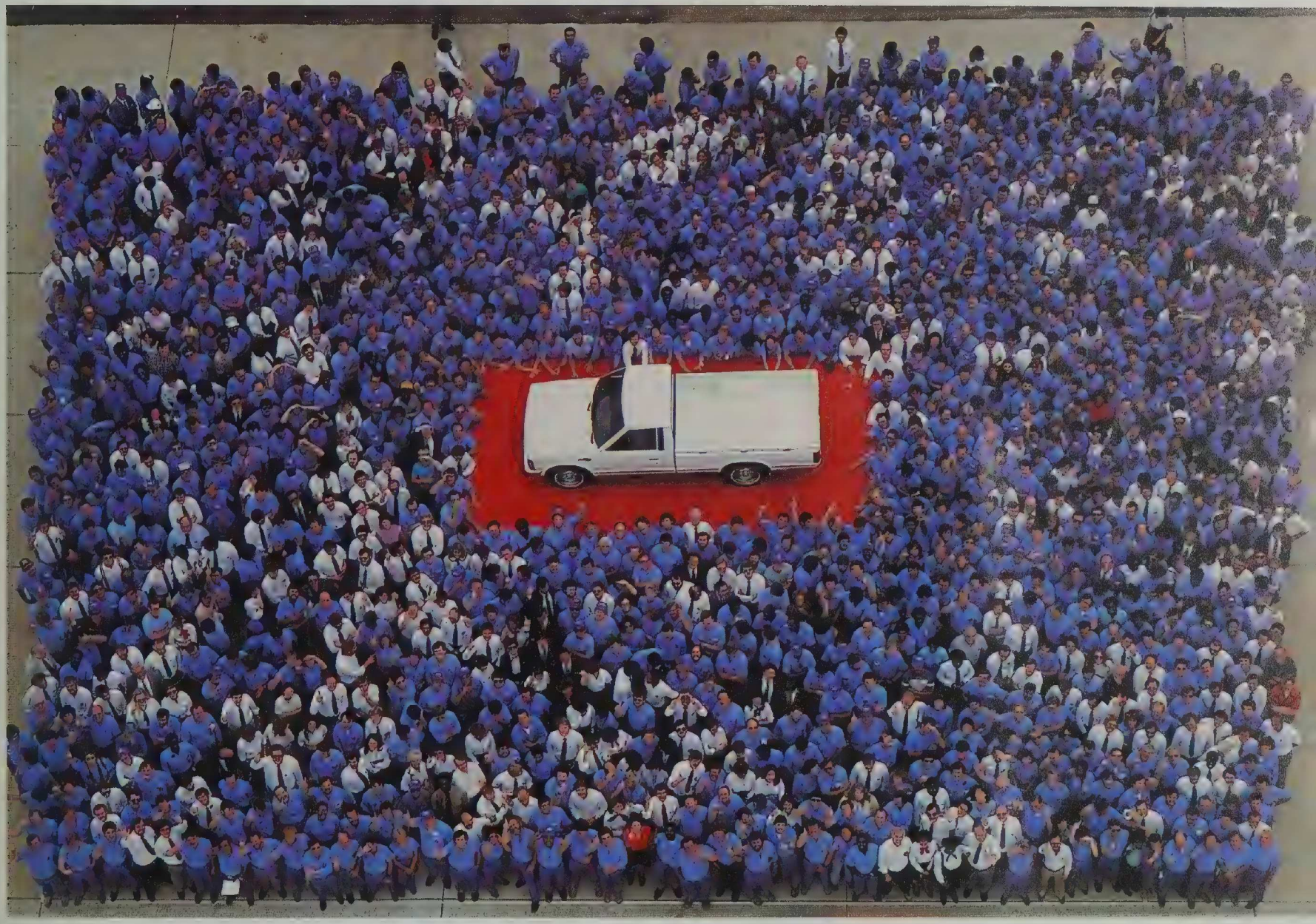
The cheering continued as the NMMC president drove toward the exit.



Tomorrow and in the weeks and months to come, 1,338 of those people would be back on the job at NMMC, helping in a multitude of ways to make history with "the highest quality truck sold in North America." For most of them, today's events would have special meaning.

Before they went to lunch as guests of the company and then returned to their jobs, the people of NMMC followed Marvin Runyon out of a door in trim and chassis and onto a concrete runway by which the production vehicles of the future would depart the Smyrna plant. A red-carpeted platform had been set up there, and Runyon drove the white Job 1 truck up a ramp and onto the carpet. Then he got out and joined his fellow employees in a tight cluster around the platform. Overhead, a helicopter whirred, and a photographer leaned out the door and snapped pictures. Most of the 1,338 were there, looking skyward and smiling proudly, like the parents of a brand-new baby posing for a family portrait.

The picture seemed to sum up a long and involved story with a cast of thousands. It also froze in a single frame a climactic moment to remember, a moment of ending and beginning for Nissan in Tennessee.



While a photographer focused from a hovering helicopter, the entire staff of Nissan's new American subsidiary, NMMC, crowded around their prize product.

This book was written and edited by John Egerton
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